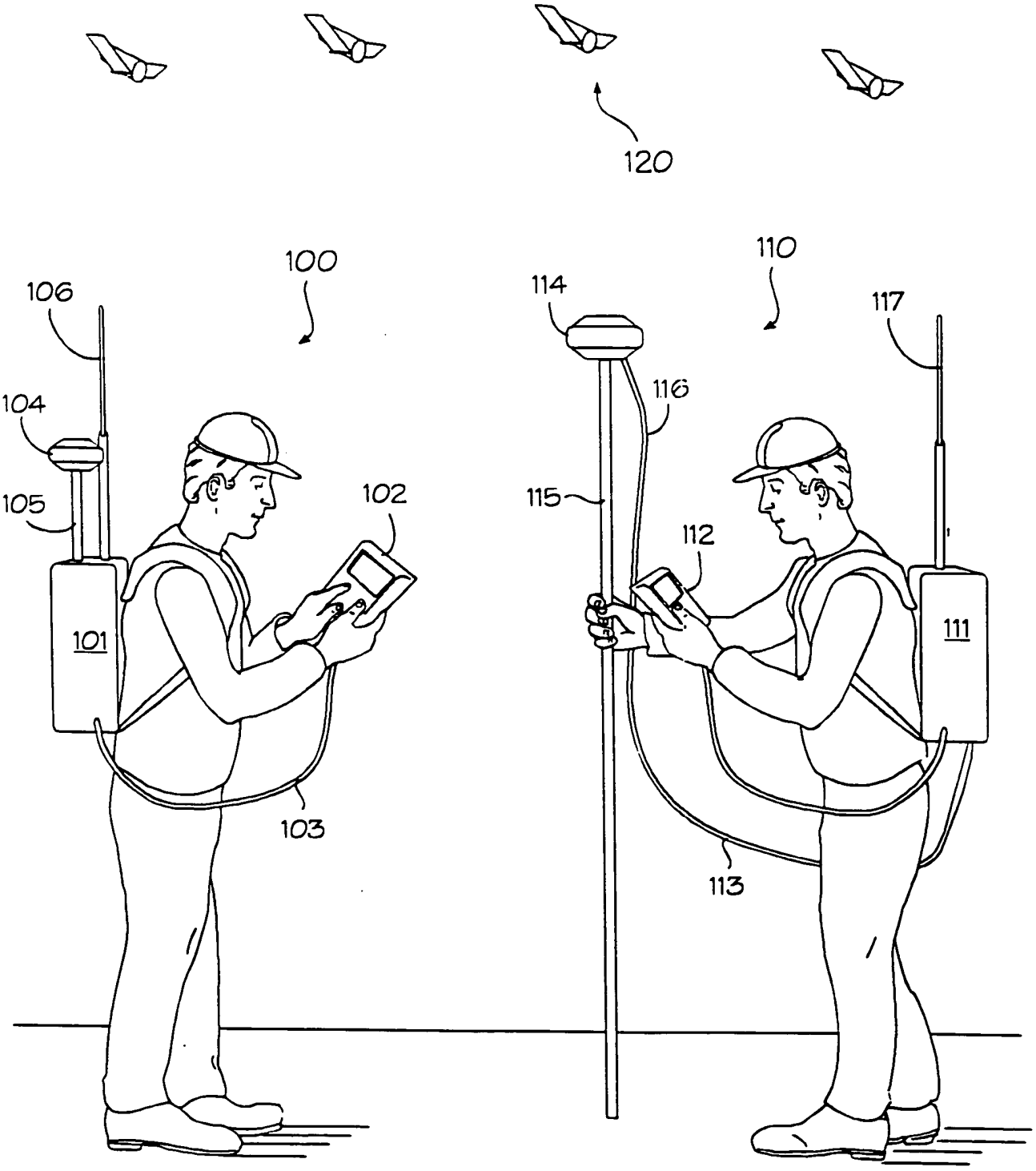


Fig. 1
(Prior Art)

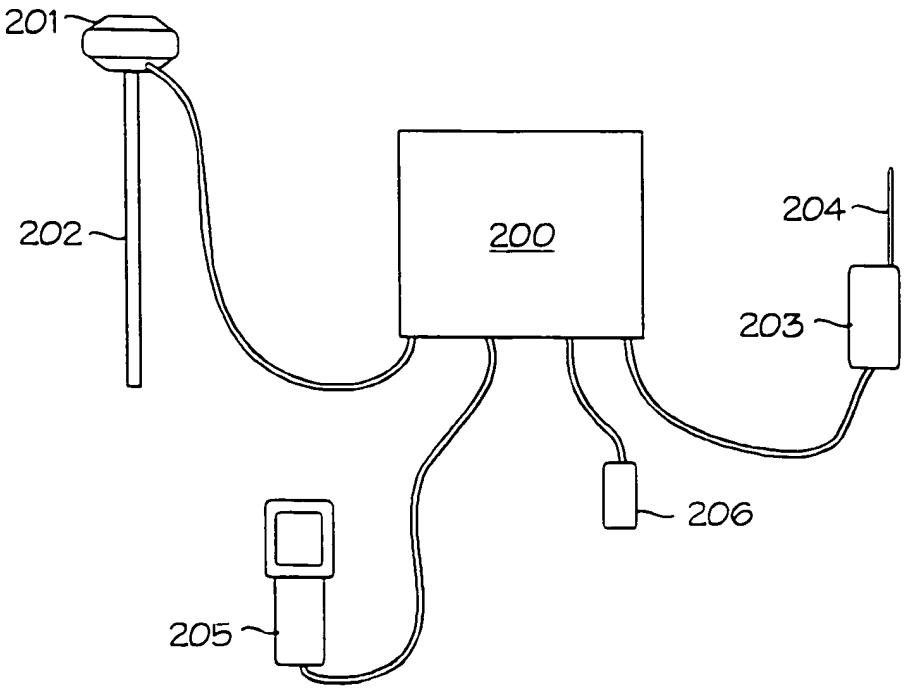


Fig. 2a
(Prior Art)

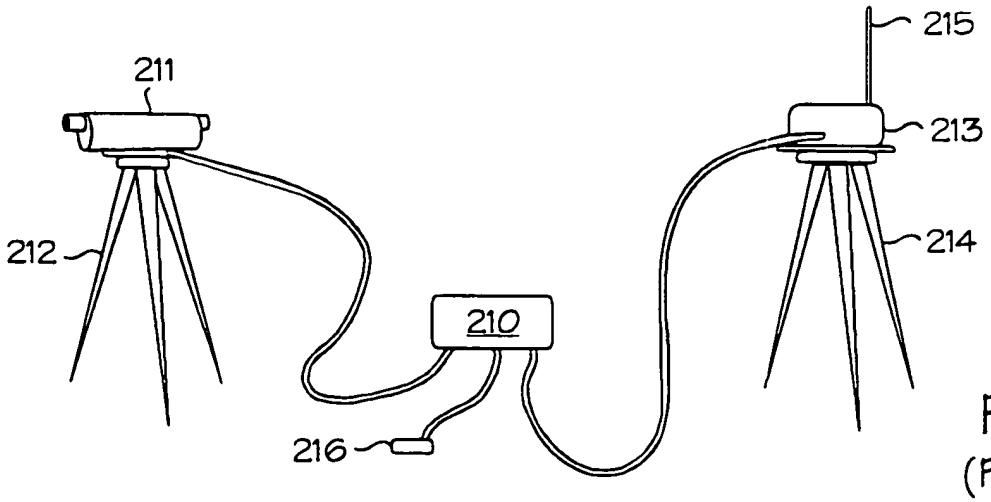


Fig. 2b
(Prior Art)

FOR 20" SCANNER

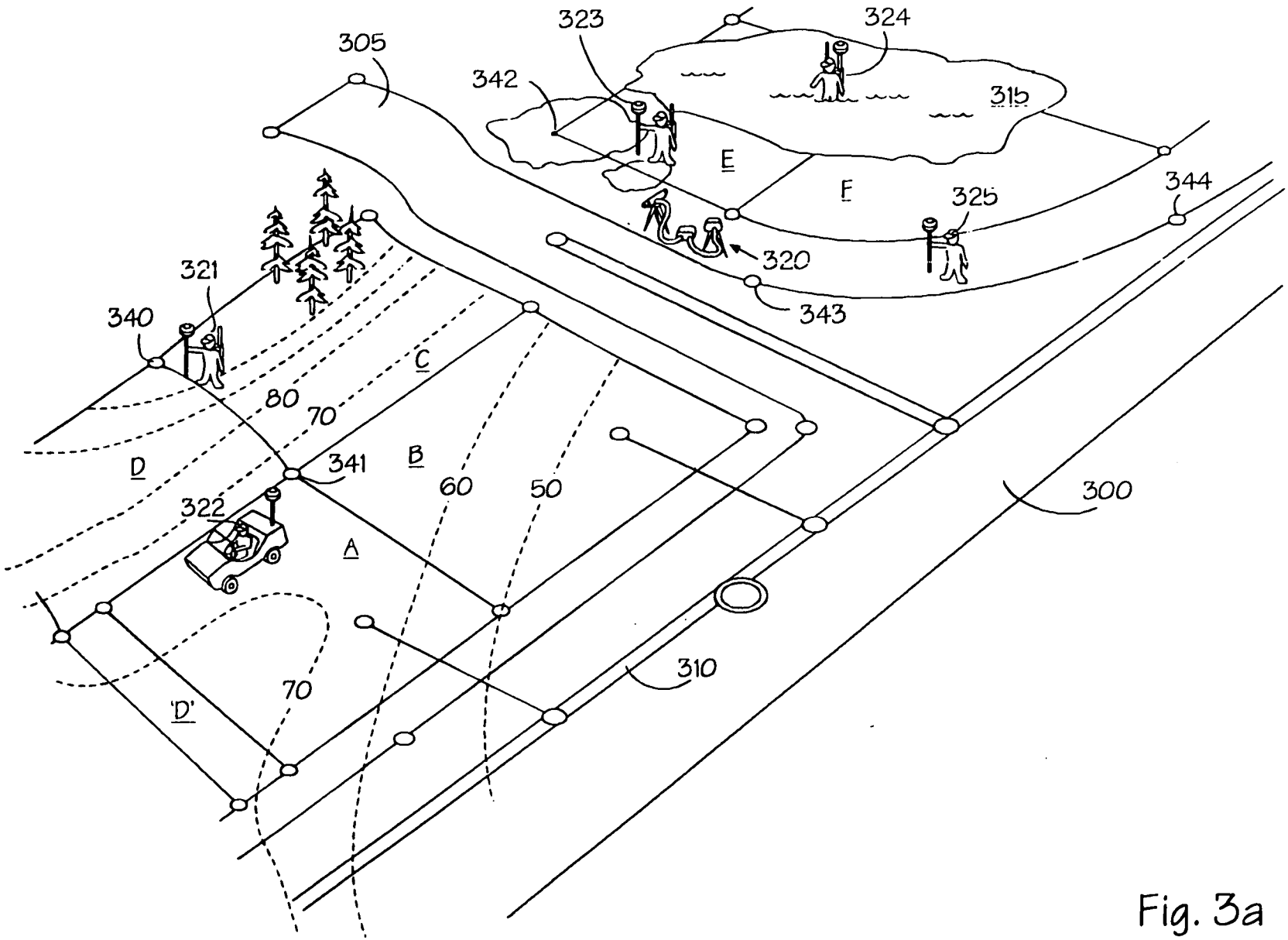
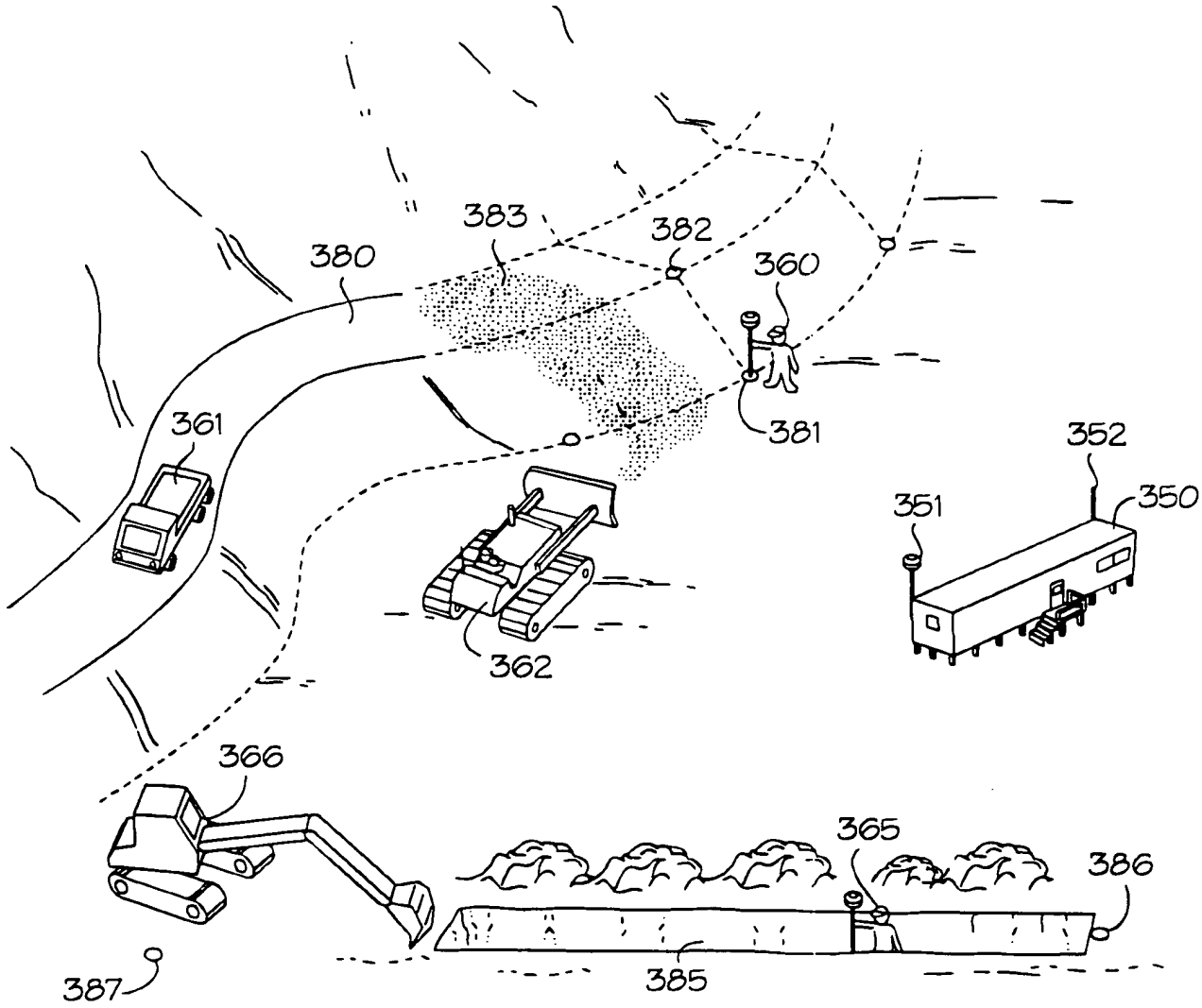


Fig. 3a

EP 0 774 730 A2



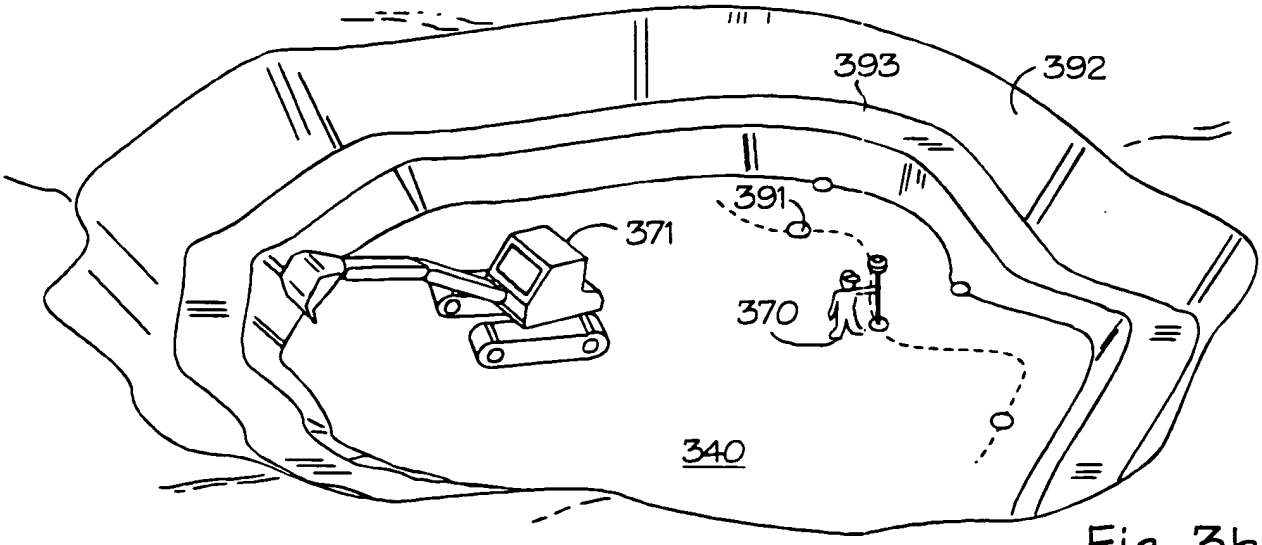


Fig. 3b

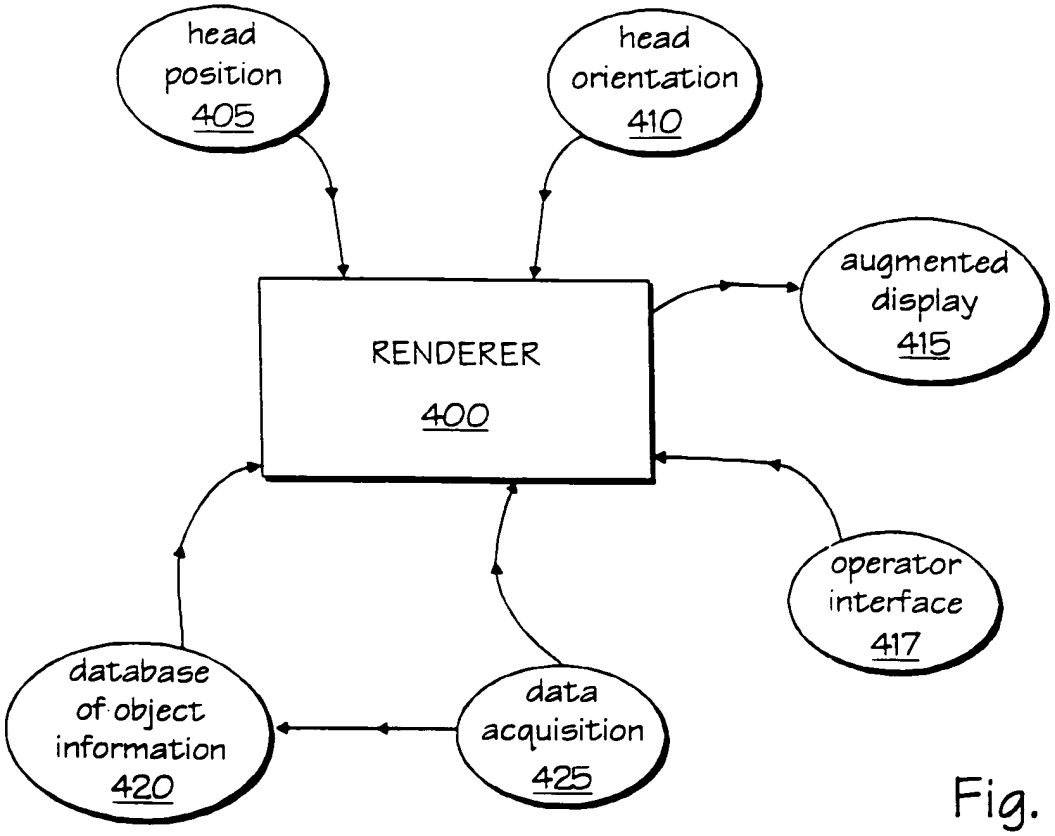

head position 405
head orientation 410
augmented display 415
RENDERER 400
operator interface 417
database of object information 420
data acquisition 425

Fig. 4a

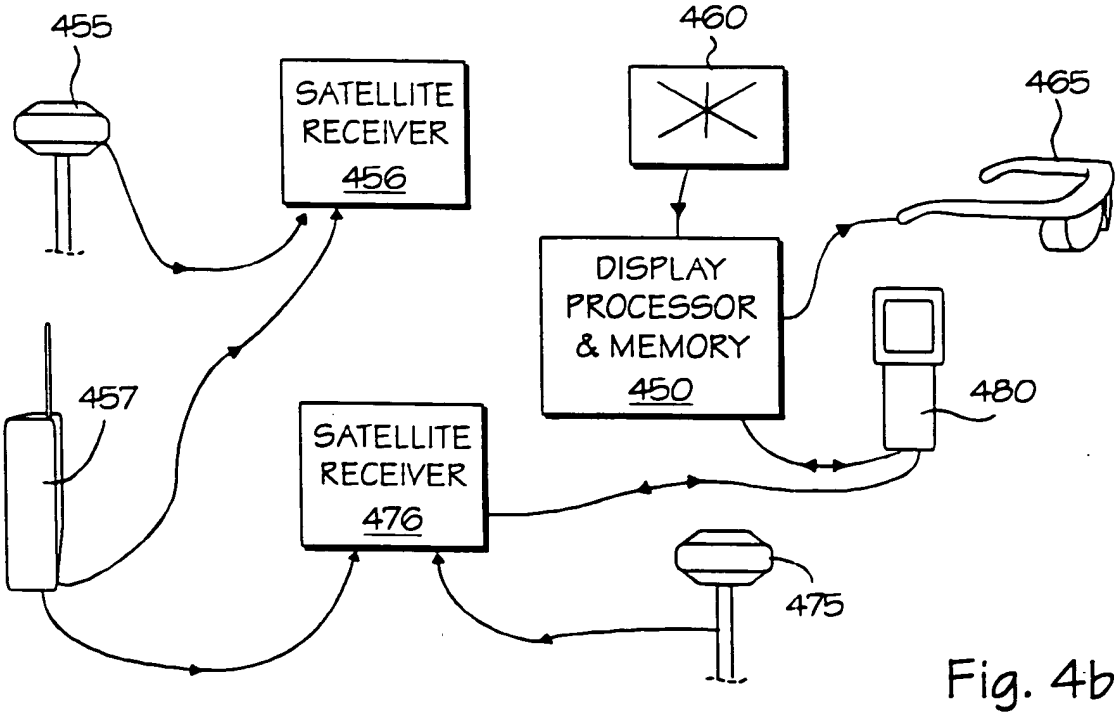

455
SATELLITE RECEIVER 456
460
465
DISPLAY PROCESSOR & MEMORY 450
480
457
SATELLITE RECEIVER 476
475

Fig. 4b

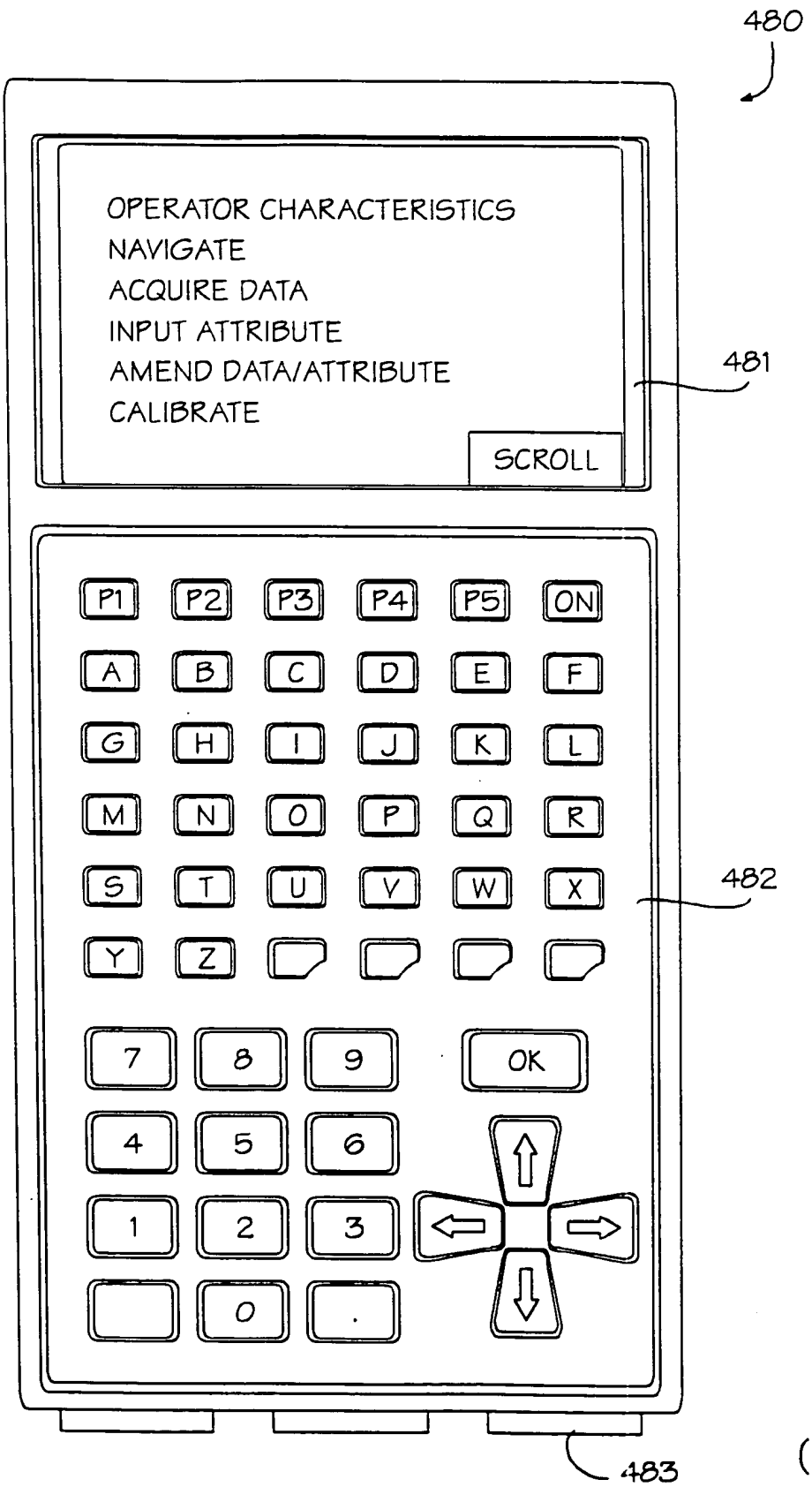


Fig. 4c
(Prior Art)

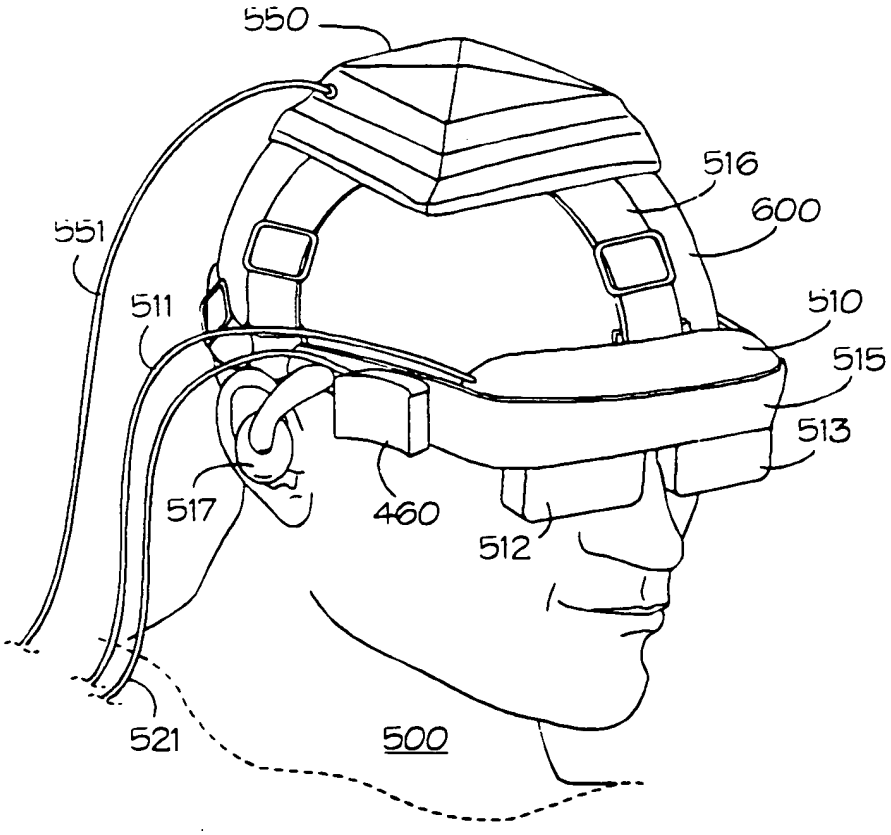

550
516
600
551
511
510
515
513
517
460
512
521
500

Fig. 5a

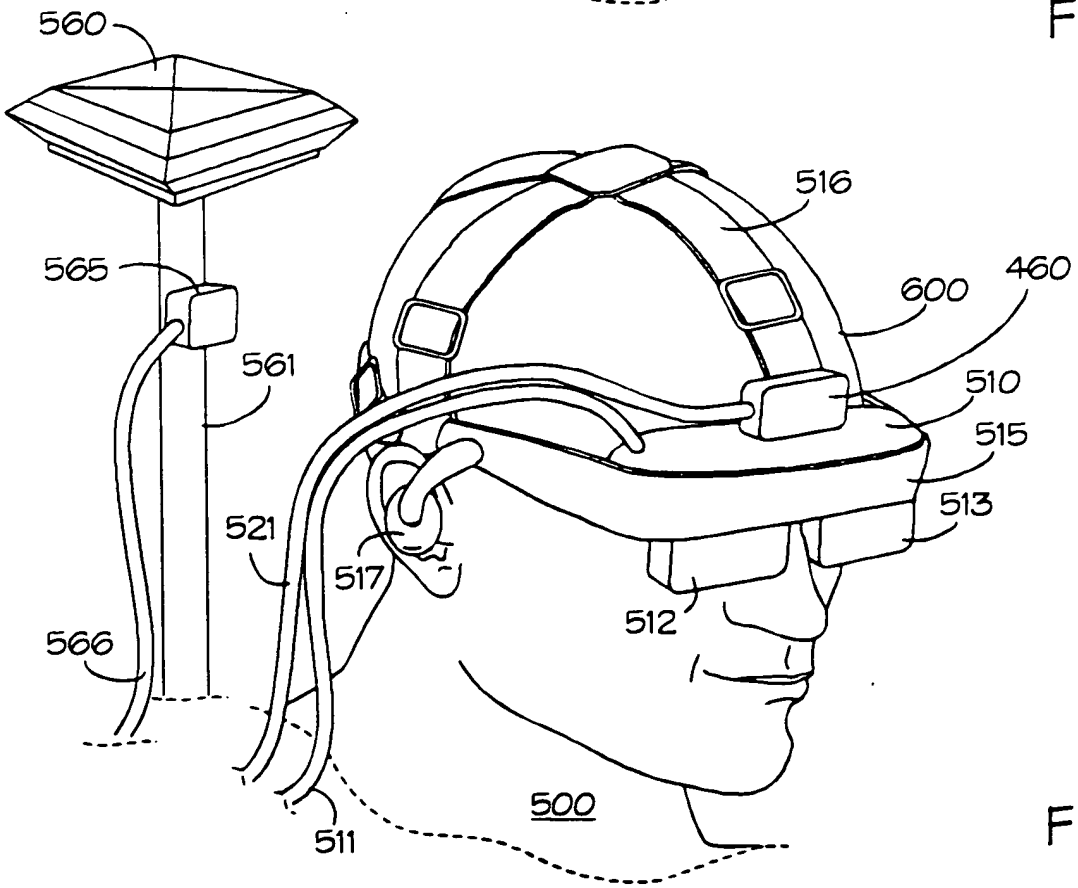

560
516
565
600
460
561
510
515
513
521
517
512
566
500
511

Fig. 5b

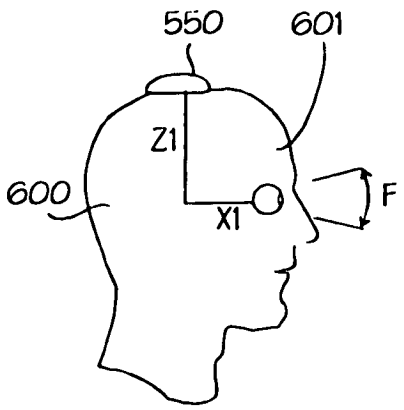

550
601
Z1
600
X1
F

Fig. 6a

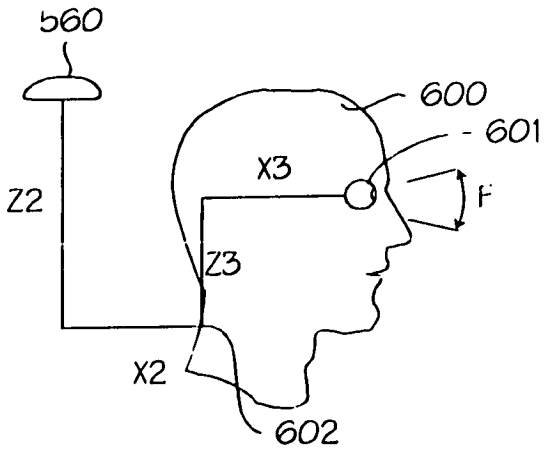
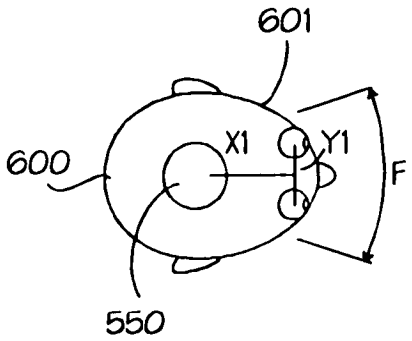
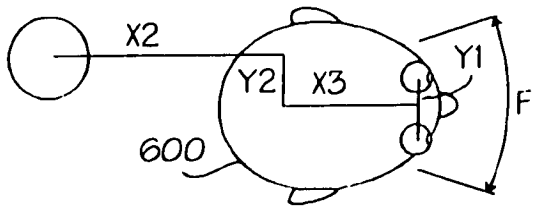

560
600
601
X3
Z2
F
Z3
X2
602

Fig. 6b


601
600
X1
Y1
F
550


X2
Y2
X3
Y1
F
600

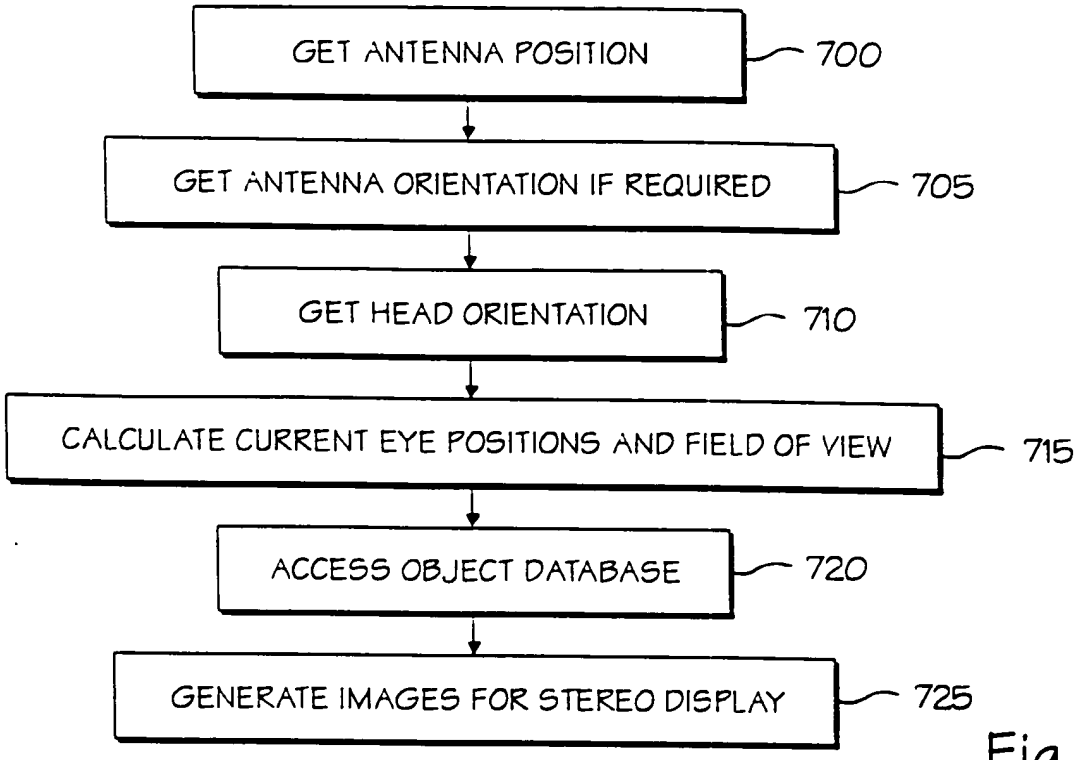

GET ANTENNA POSITION
700
GET ANTENNA ORIENTATION IF REQUIRED
705
GET HEAD ORIENTATION
710
CALCULATE CURRENT EYE POSITIONS AND FIELD OF VIEW
715
ACCESS OBJECT DATABASE
720
GENERATE IMAGES FOR STEREO DISPLAY
725

Fig. 7

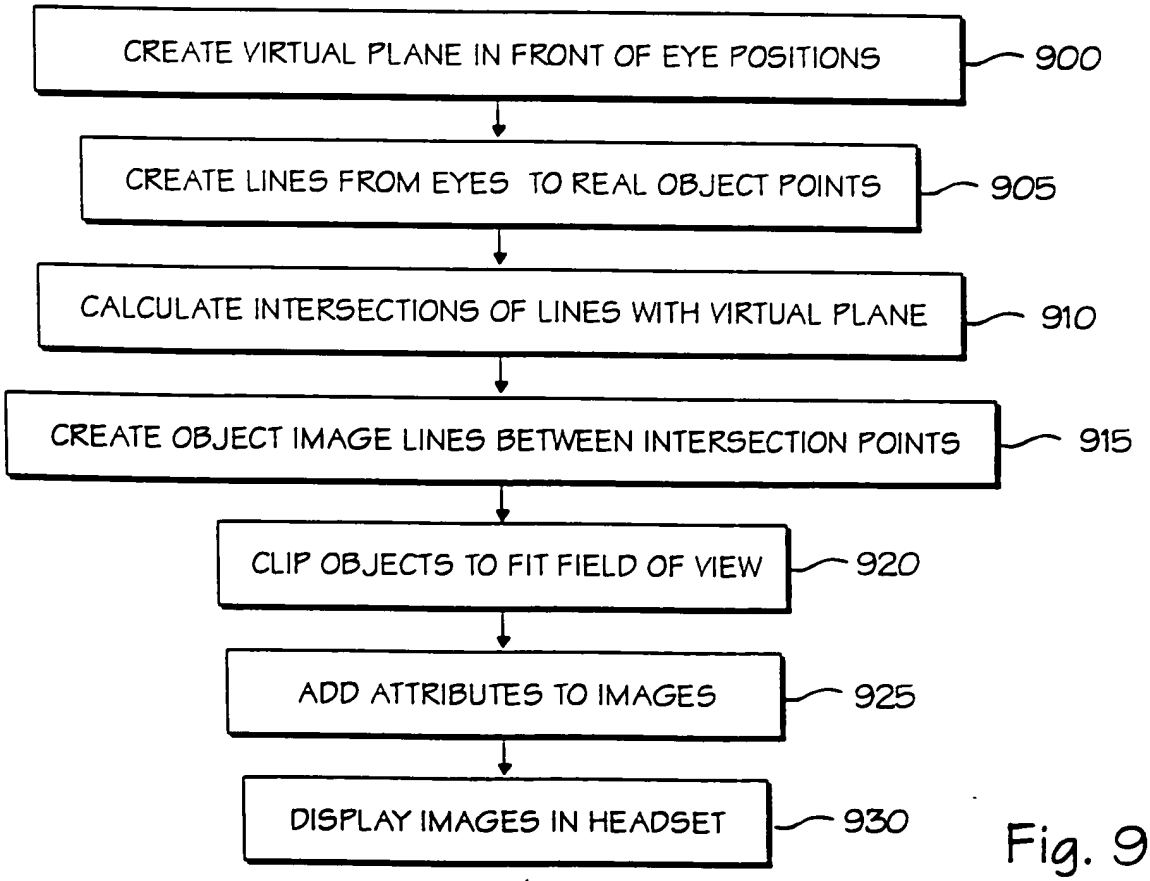

CREATE VIRTUAL PLANE IN FRONT OF EYE POSITIONS
900
CREATE LINES FROM EYES TO REAL OBJECT POINTS
905
CALCULATE INTERSECTIONS OF LINES WITH VIRTUAL PLANE
910
CREATE OBJECT IMAGE LINES BETWEEN INTERSECTION POINTS
915
CLIP OBJECTS TO FIT FIELD OF VIEW
920
ADD ATTRIBUTES TO IMAGES
925
DISPLAY IMAGES IN HEADSET
930

Fig. 9

FOR 20" SCREEN

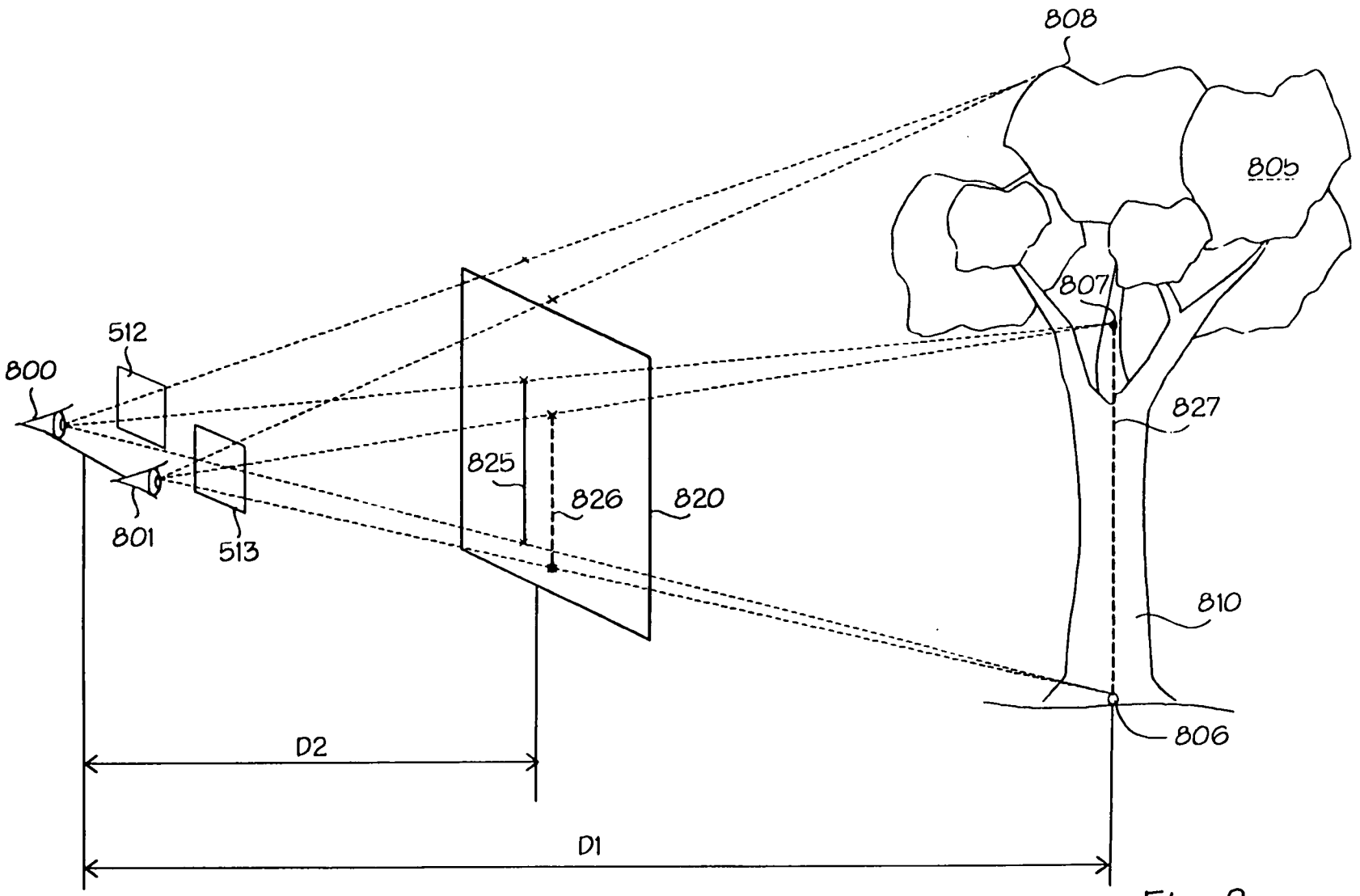


Fig. 8

PATENT SOFTWARE

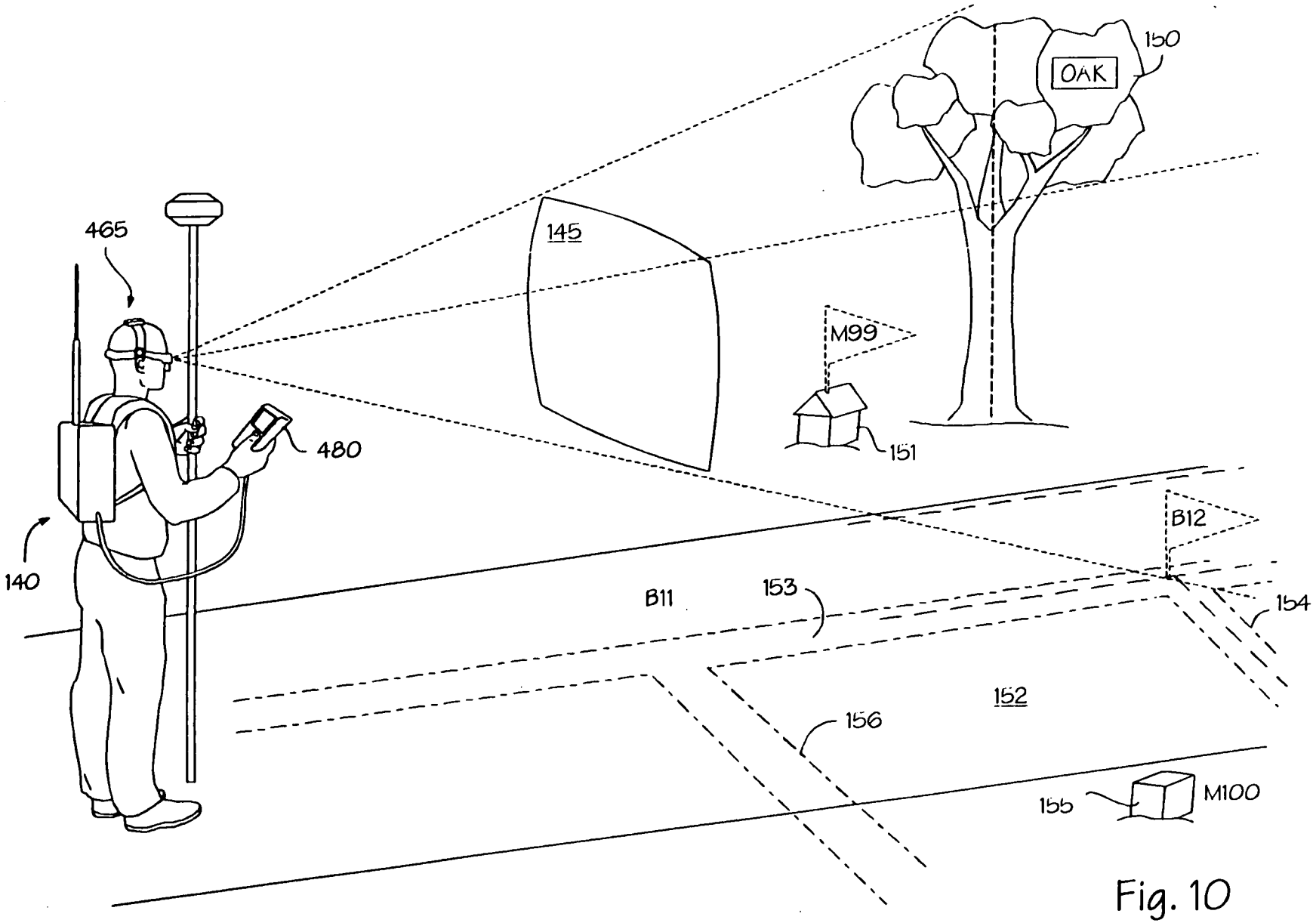


Fig. 10

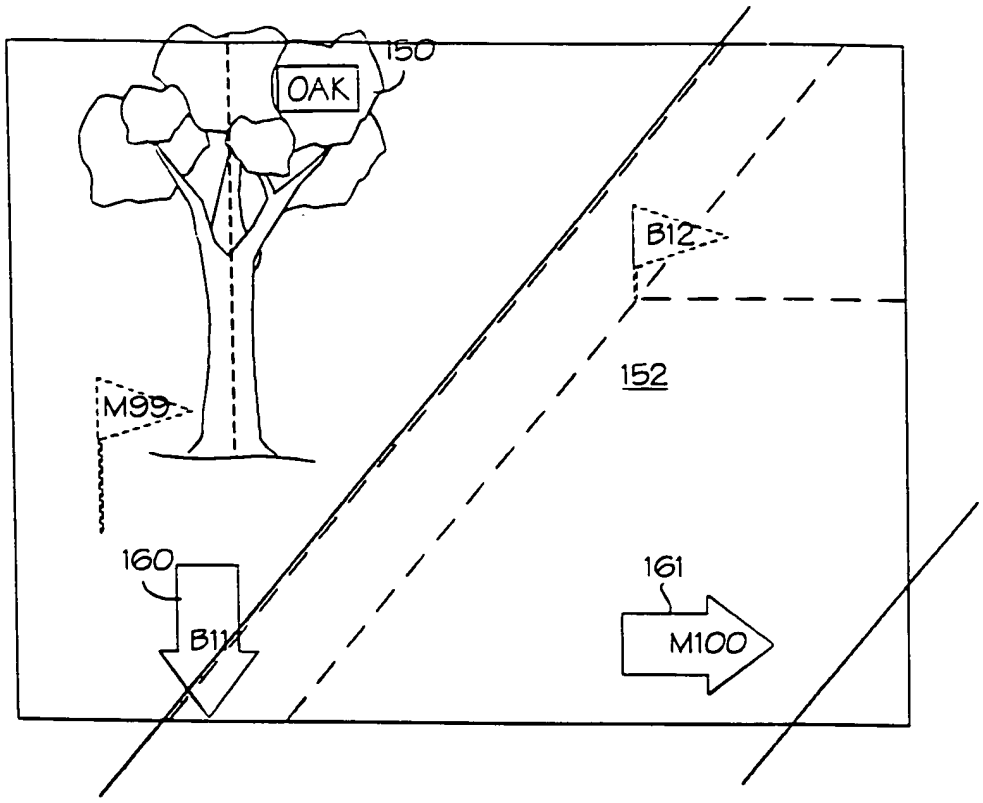

OAK
150
B12
152
M99
160
B11
161
M100

Fig. 11

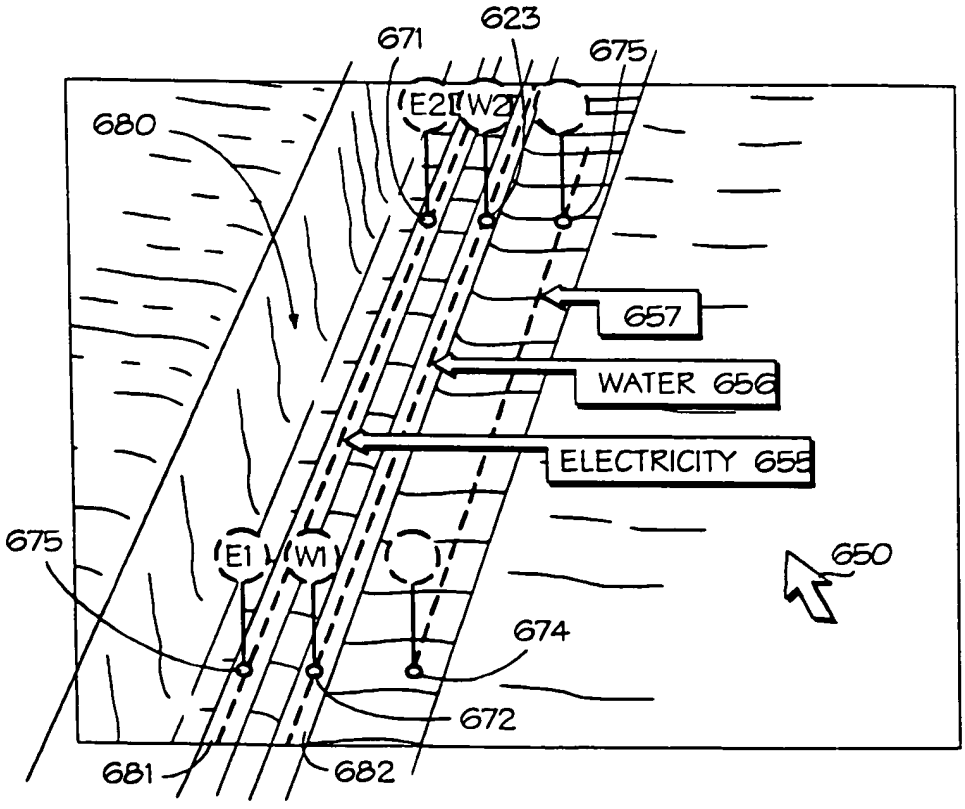

671
623
675
680
E2
W2
657
WATER 656
ELECTRICITY 655
675
E1
W1
650
674
672
681
682

Fig. 13

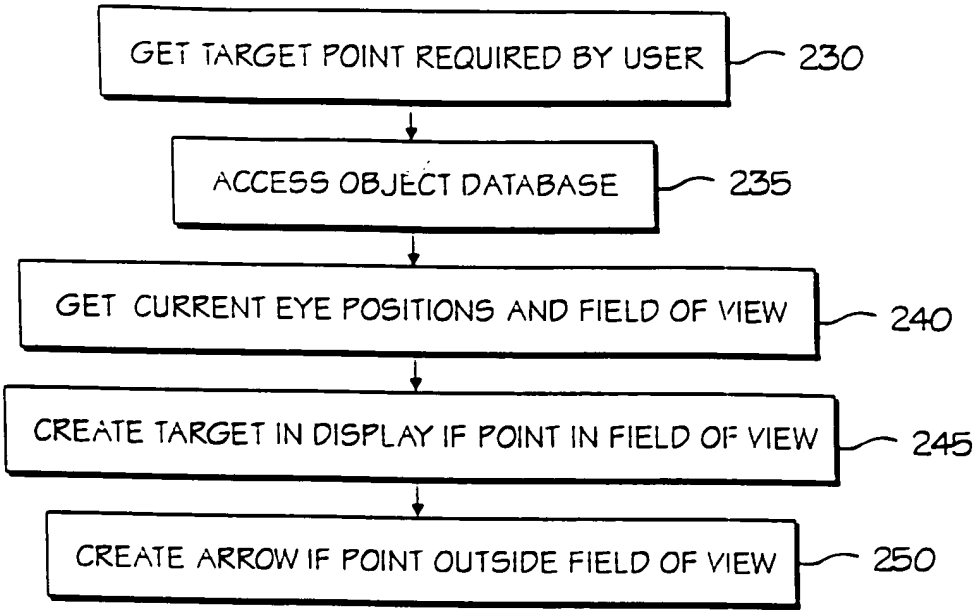

GET TARGET POINT REQUIRED BY USER
230
ACCESS OBJECT DATABASE
235
GET CURRENT EYE POSITIONS AND FIELD OF VIEW
240
CREATE TARGET IN DISPLAY IF POINT IN FIELD OF VIEW
245
CREATE ARROW IF POINT OUTSIDE FIELD OF VIEW
250

Fig. 12

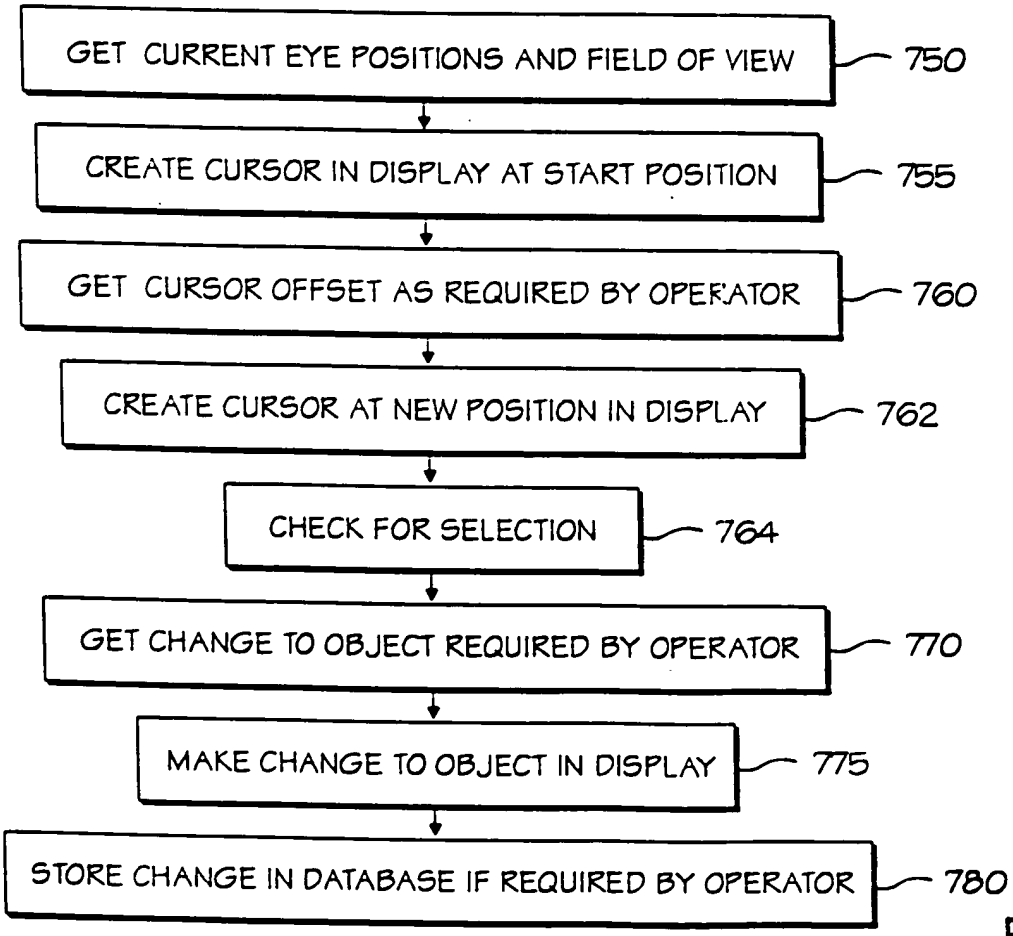

GET CURRENT EYE POSITIONS AND FIELD OF VIEW
750
CREATE CURSOR IN DISPLAY AT START POSITION
755
GET CURSOR OFFSET AS REQUIRED BY OPERATOR
760
CREATE CURSOR AT NEW POSITION IN DISPLAY
762
CHECK FOR SELECTION
764
GET CHANGE TO OBJECT REQUIRED BY OPERATOR
770
MAKE CHANGE TO OBJECT IN DISPLAY
775
STORE CHANGE IN DATABASE IF REQUIRED BY OPERATOR
780

Fig. 14

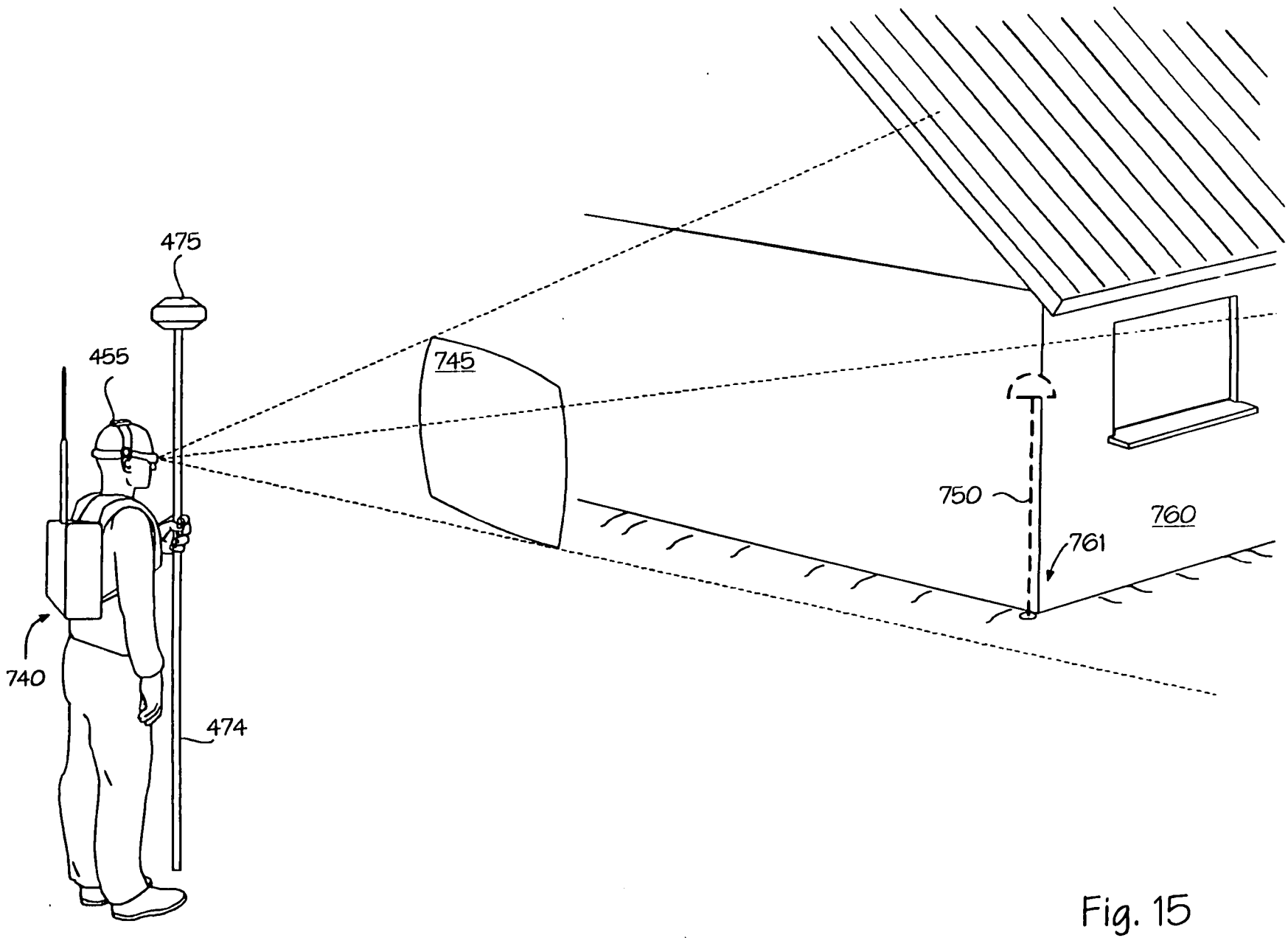


Fig. 15

TOETZO 5027A0660

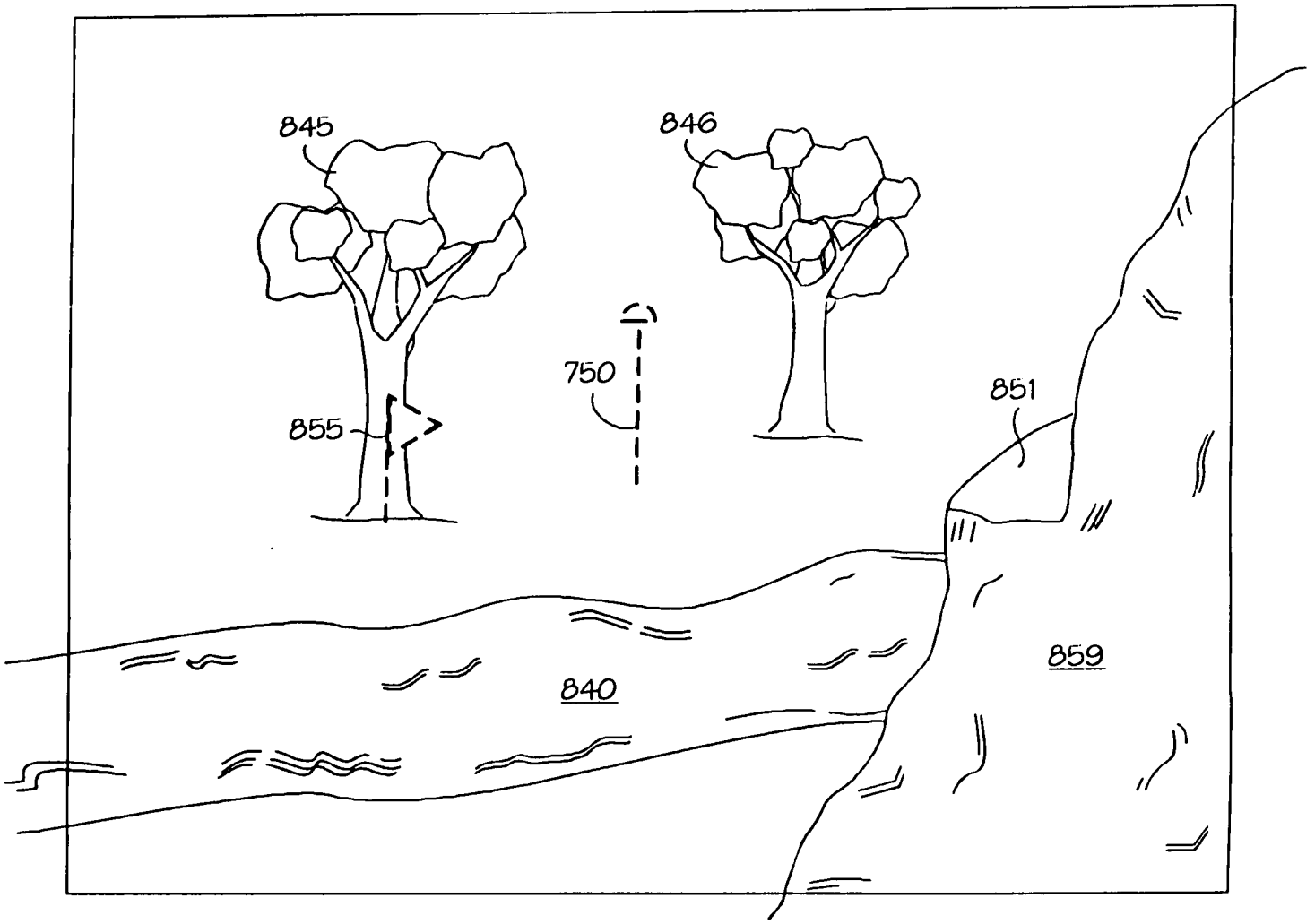


Fig. 16

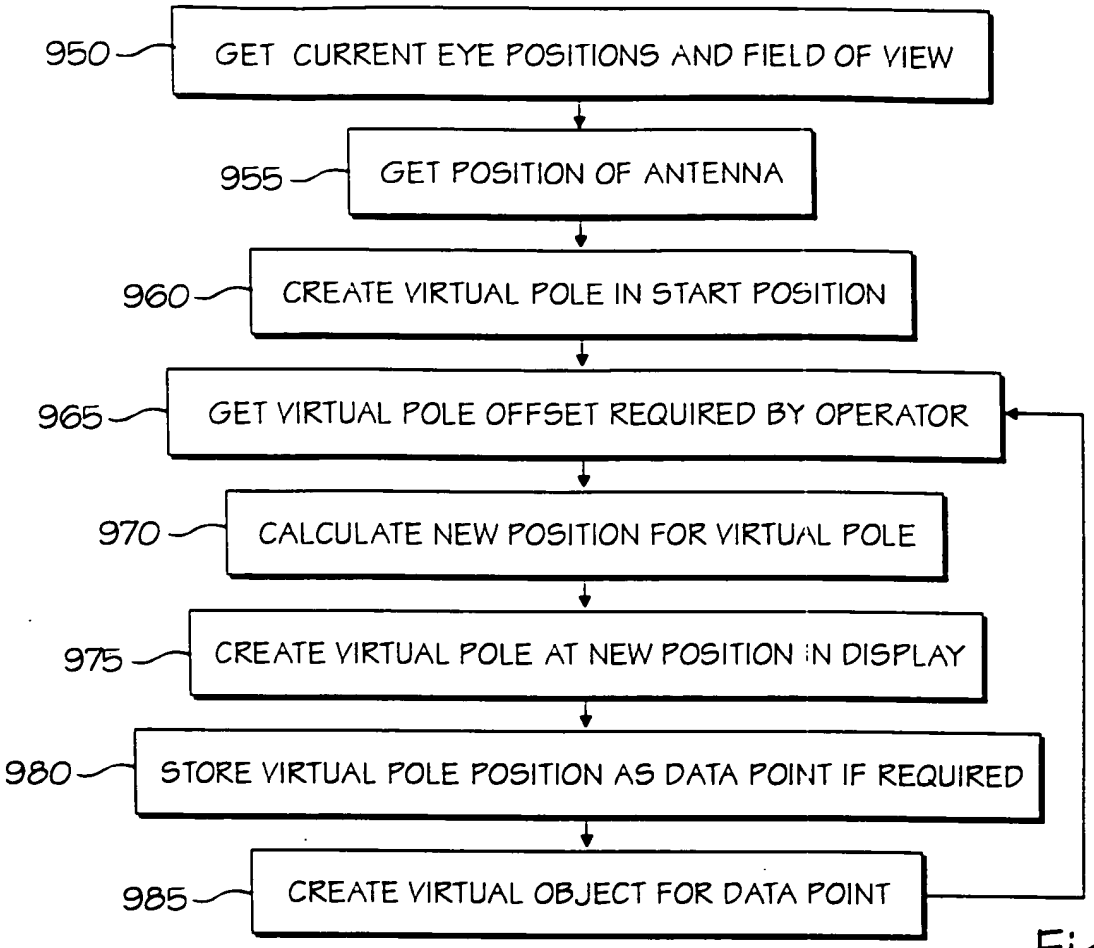

950
GET CURRENT EYE POSITIONS AND FIELD OF VIEW
955
GET POSITION OF ANTENNA
960
CREATE VIRTUAL POLE IN START POSITION
965
GET VIRTUAL POLE OFFSET REQUIRED BY OPERATOR
970
CALCULATE NEW POSITION FOR VIRTUAL POLE
975
CREATE VIRTUAL POLE AT NEW POSITION IN DISPLAY
980
STORE VIRTUAL POLE POSITION AS DATA POINT IF REQUIRED
985
CREATE VIRTUAL OBJECT FOR DATA POINT

Fig. 17

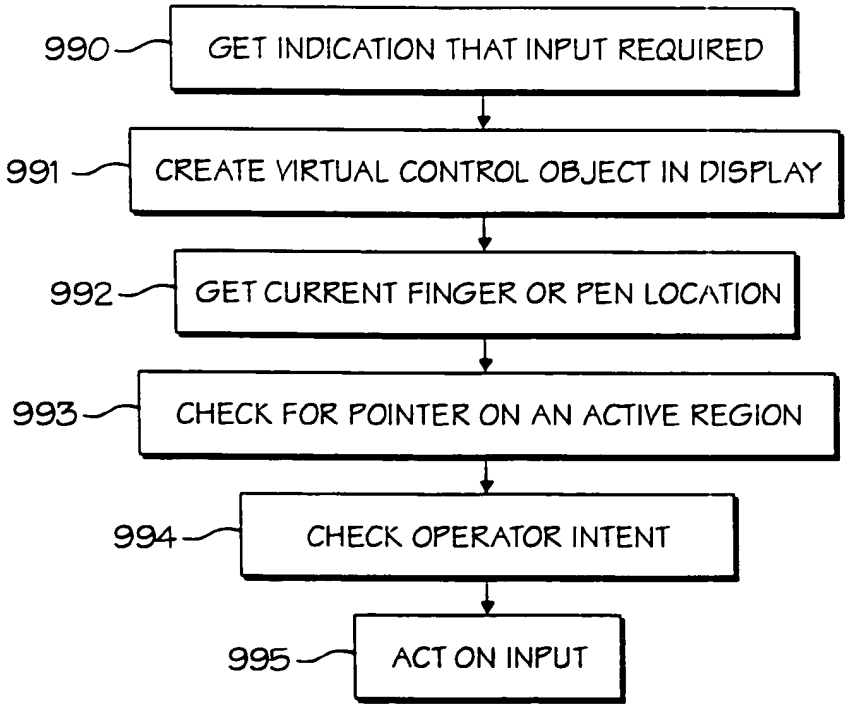

990
GET INDICATION THAT INPUT REQUIRED
991
CREATE VIRTUAL CONTROL OBJECT IN DISPLAY
992
GET CURRENT FINGER OR PEN LOCATION
993
CHECK FOR POINTER ON AN ACTIVE REGION
994
CHECK OPERATOR INTENT
995
ACT ON INPUT

Fig. 20

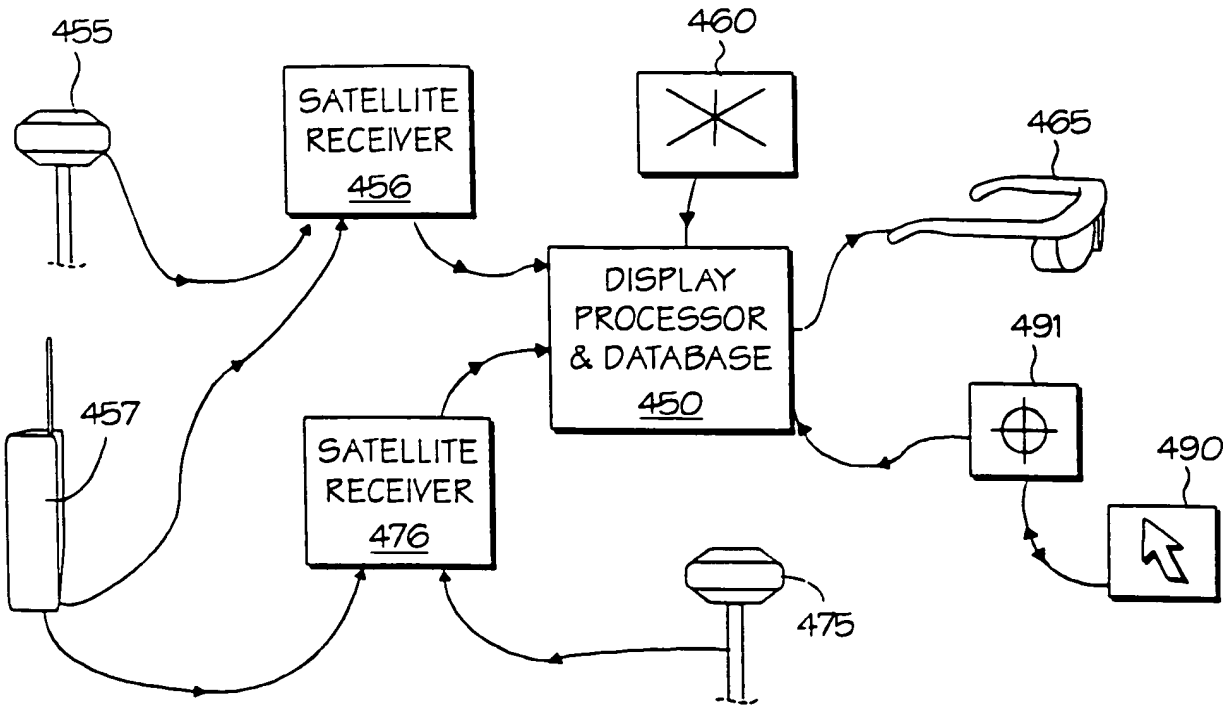

455
SATELLITE RECEIVER 456
460
465
DISPLAY PROCESSOR & DATABASE 450
491
490
457
SATELLITE RECEIVER 476
475

Fig. 18

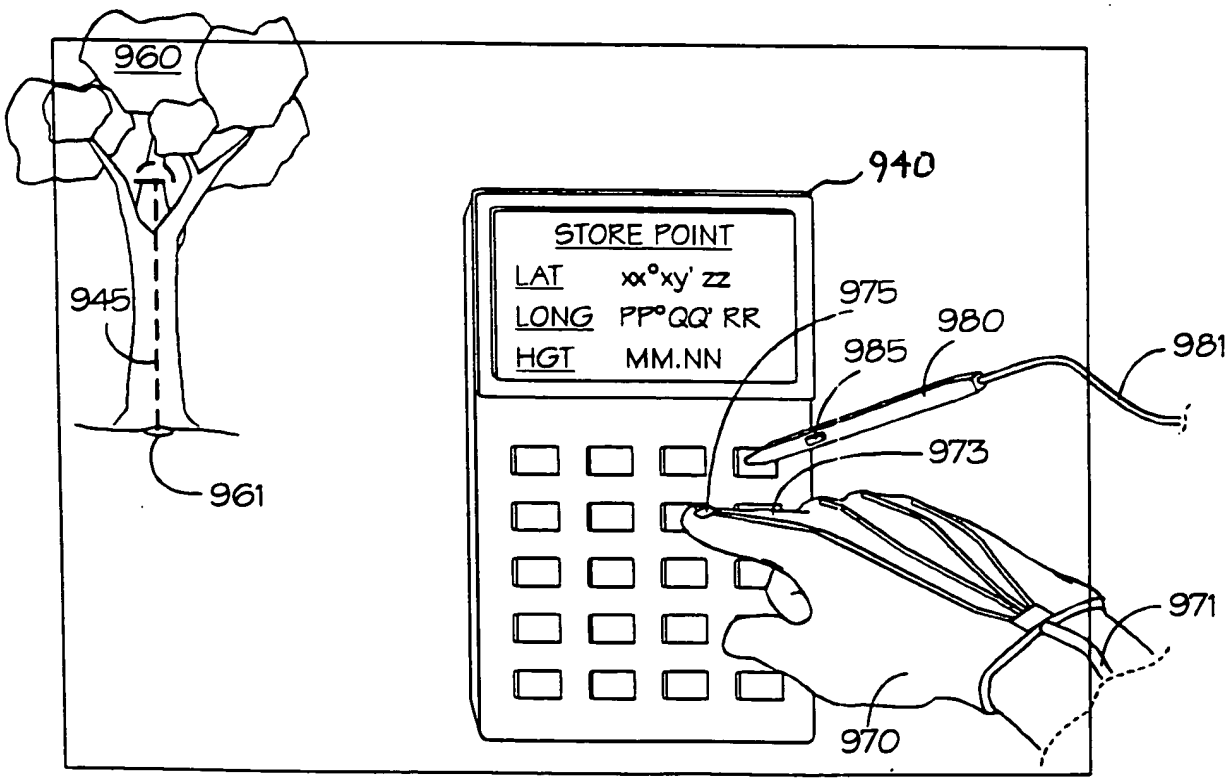

960
940
STORE POINT
LAT xx°xy' zz
LONG PP°QQ' RR
HGT MM.NN
945
975
980
985
981
973
971
961
970

Fig. 19

FOREIGN SOCIETY

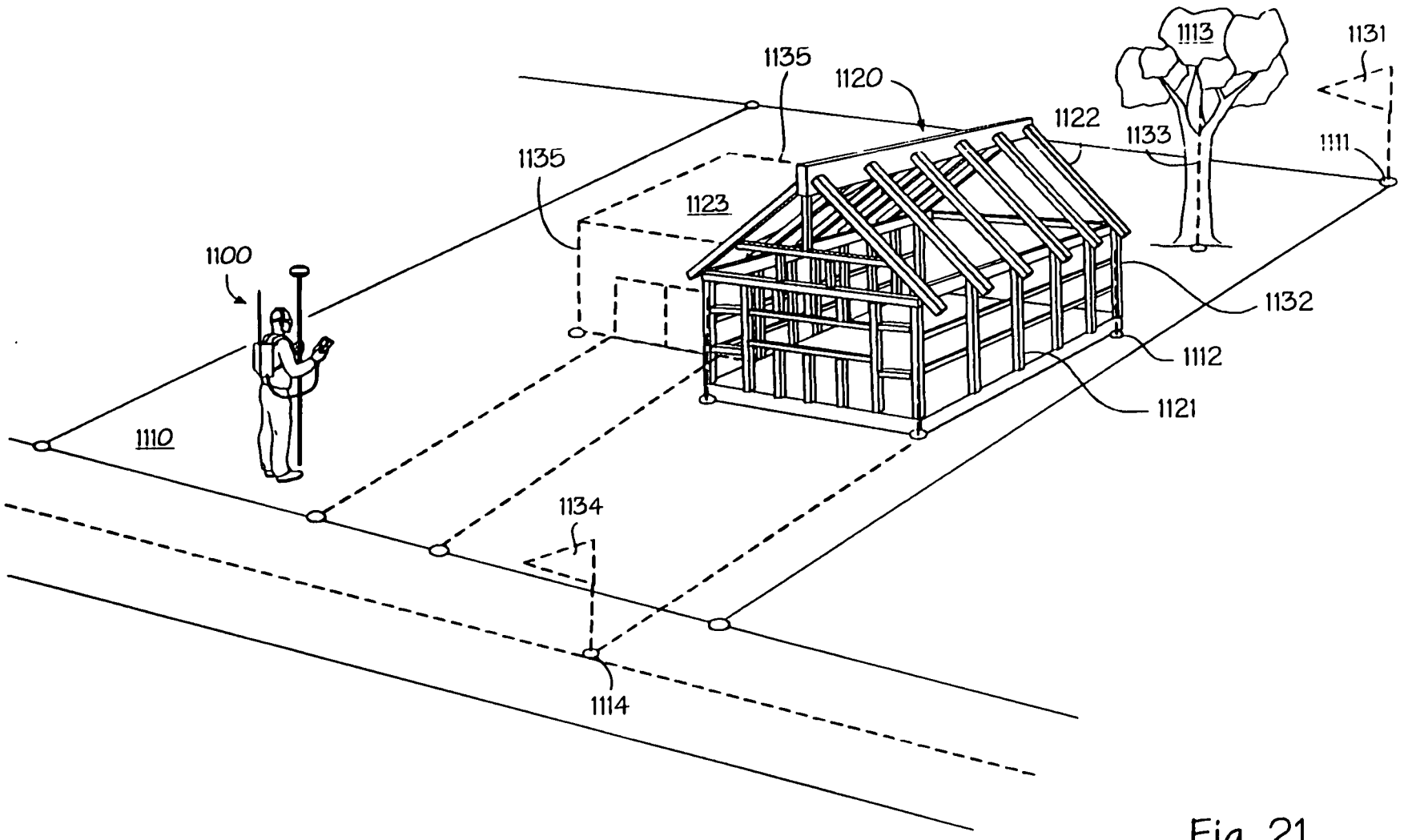


Fig. 21

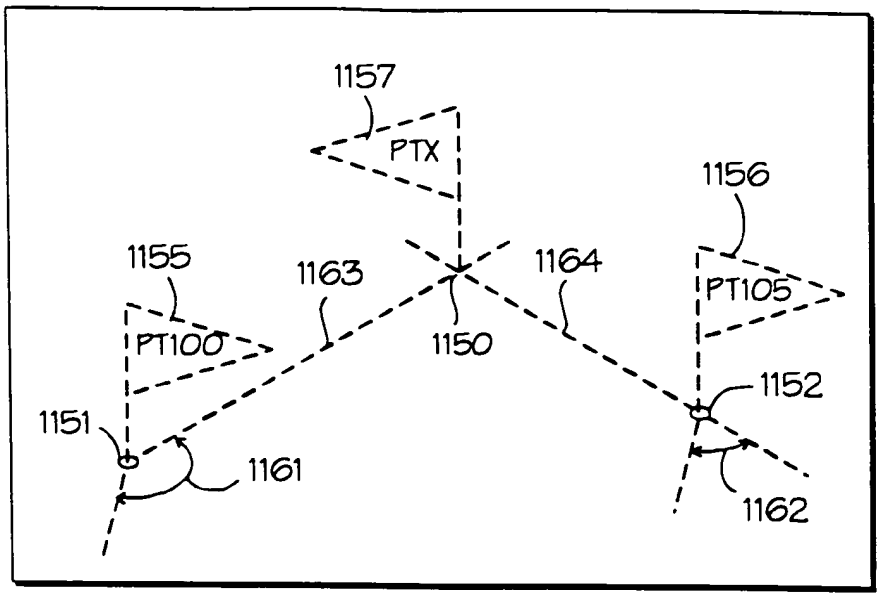

1157
PTX
1156
1155
1163
1164
PT105
PT100
1150
1152
1151
1161
1162

Fig. 22

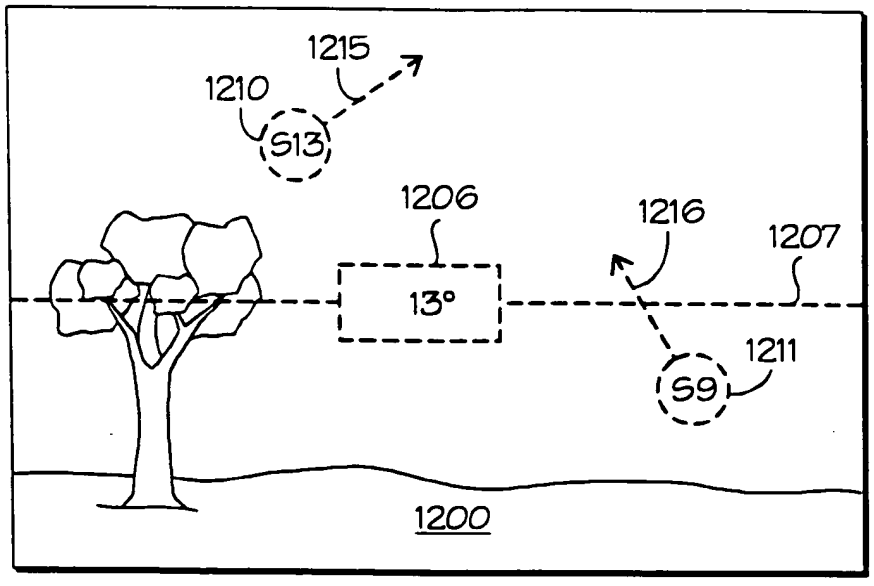

1215
1210
S13
1206
1216
1207
13°
1211
S9
1200

Fig. 25

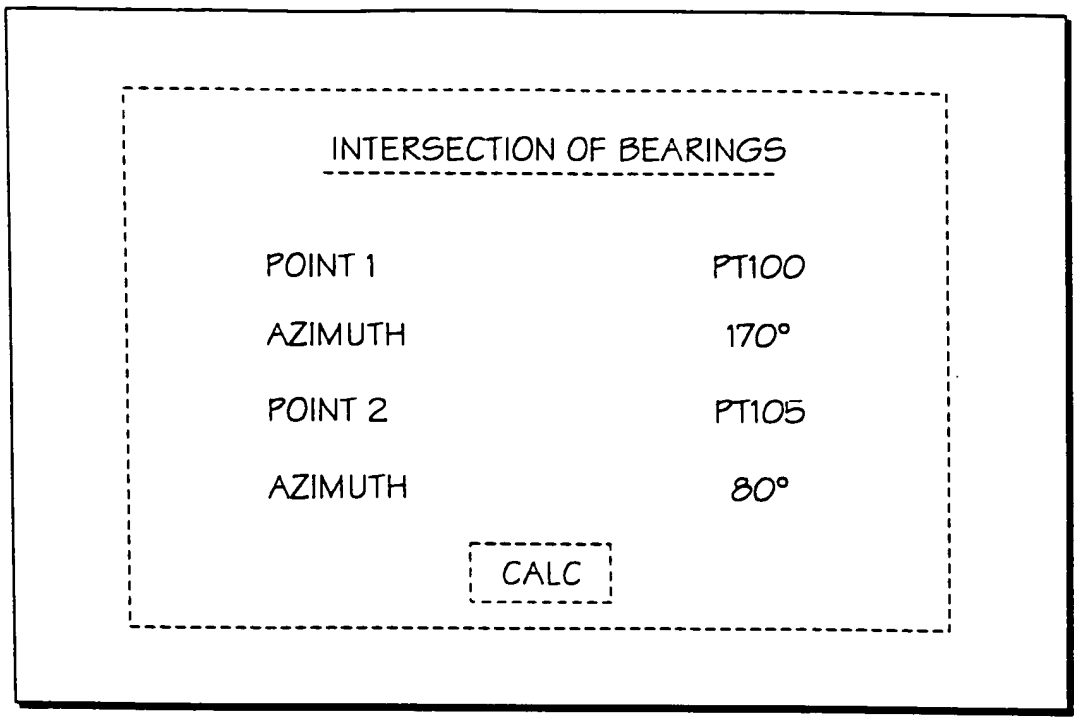


Fig. 23a

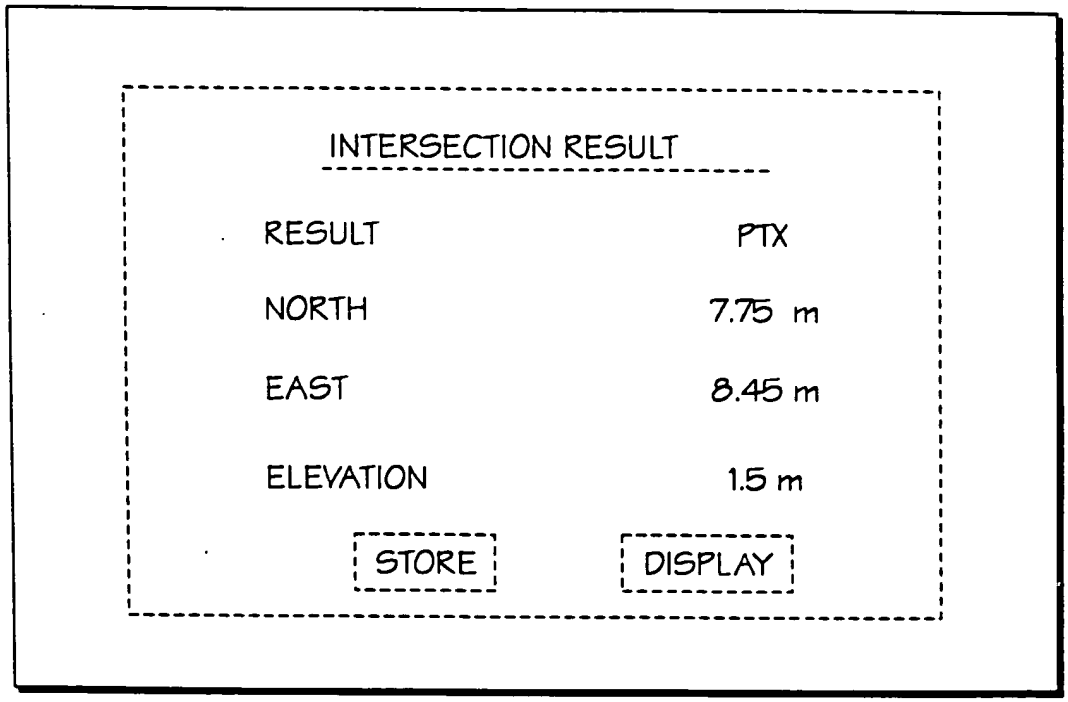


Fig. 23b

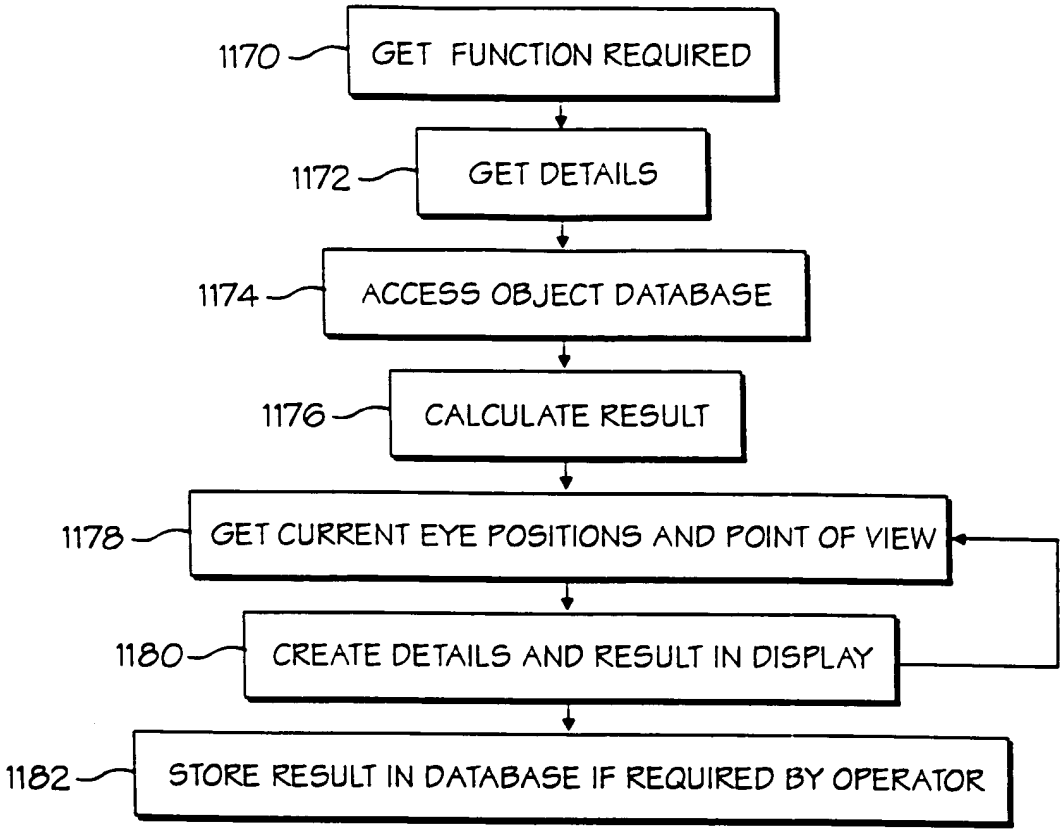

1170
GET FUNCTION REQUIRED
1172
GET DETAILS
1174
ACCESS OBJECT DATABASE
1176
CALCULATE RESULT
1178
GET CURRENT EYE POSITIONS AND POINT OF VIEW
1180
CREATE DETAILS AND RESULT IN DISPLAY
1182
STORE RESULT IN DATABASE IF REQUIRED BY OPERATOR

Fig. 24

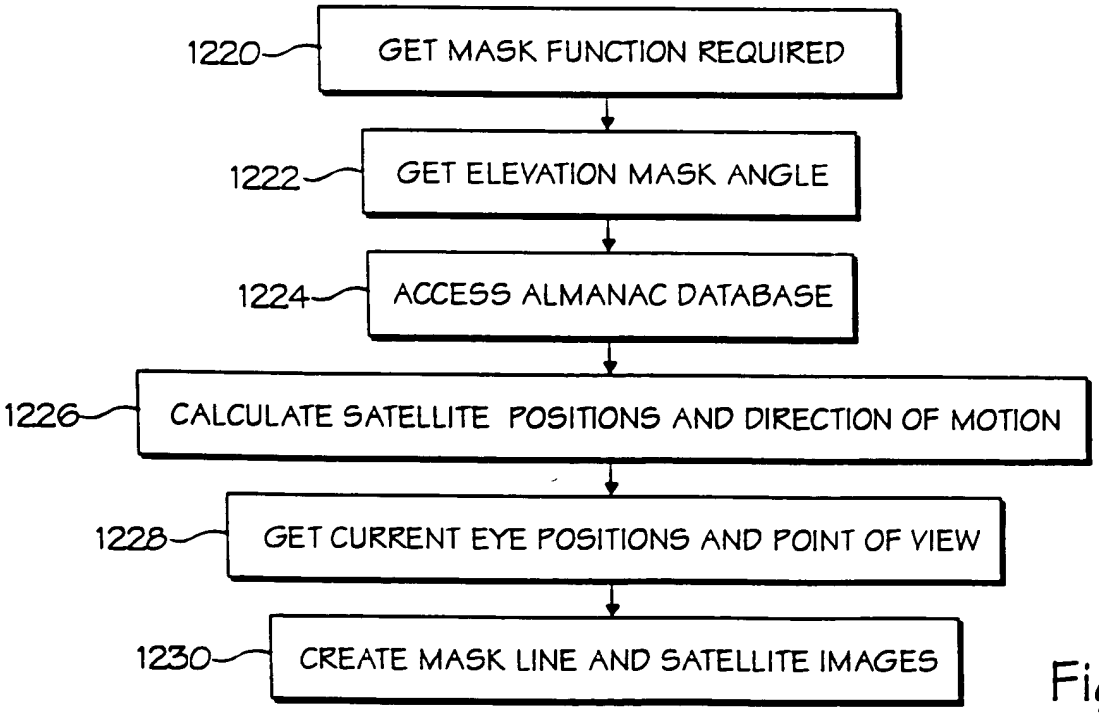

1220
GET MASK FUNCTION REQUIRED
1222
GET ELEVATION MASK ANGLE
1224
ACCESS ALMANAC DATABASE
1226
CALCULATE SATELLITE POSITIONS AND DIRECTION OF MOTION
1228
GET CURRENT EYE POSITIONS AND POINT OF VIEW
1230
CREATE MASK LINE AND SATELLITE IMAGES

Fig. 26

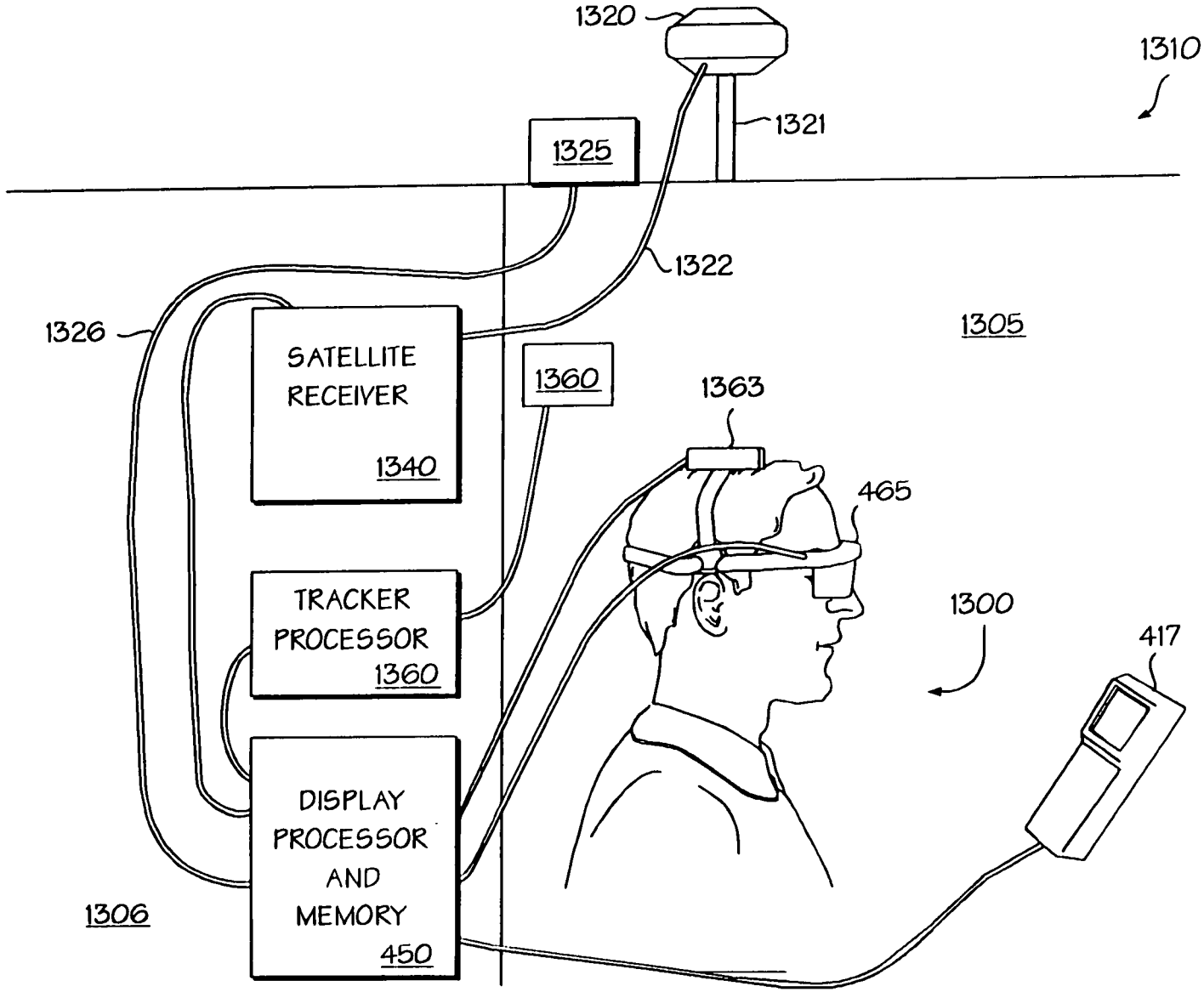

1320
1310
1321
1325
1322
1326
1305
SATELLITE RECEIVER
1340
1360
1363
465
TRACKER PROCESSOR
1360
1300
417
DISPLAY PROCESSOR AND MEMORY
450
1306

Fig. 27

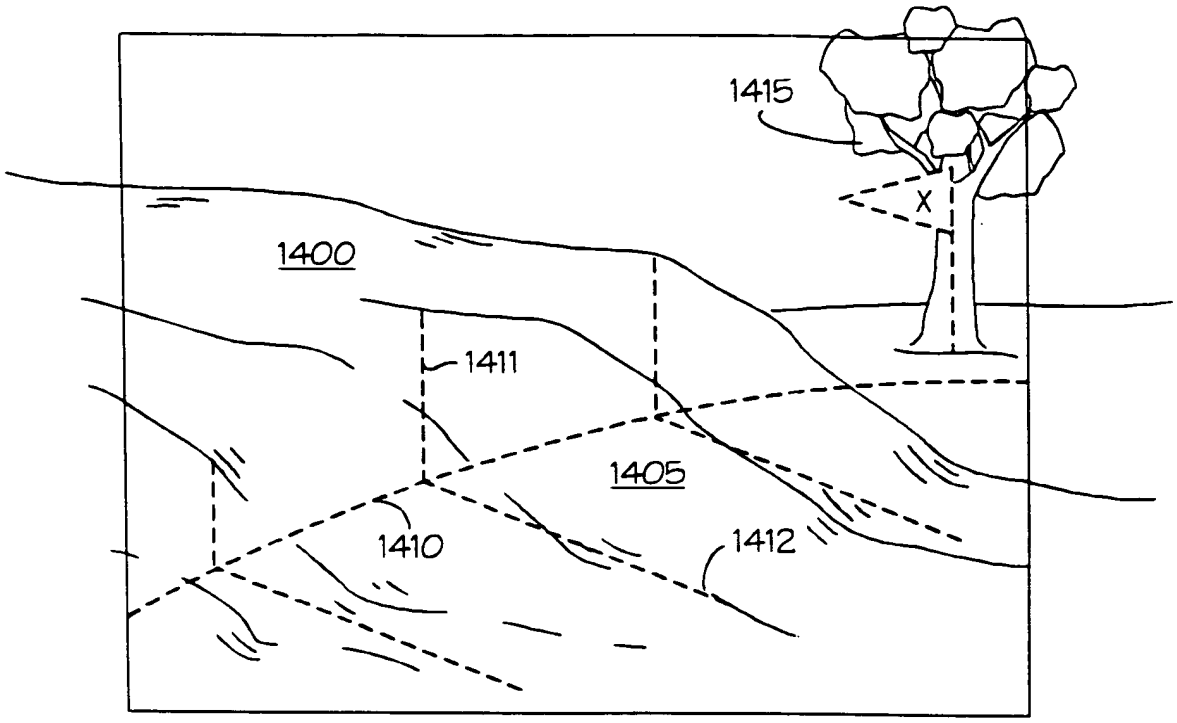


Fig. 28

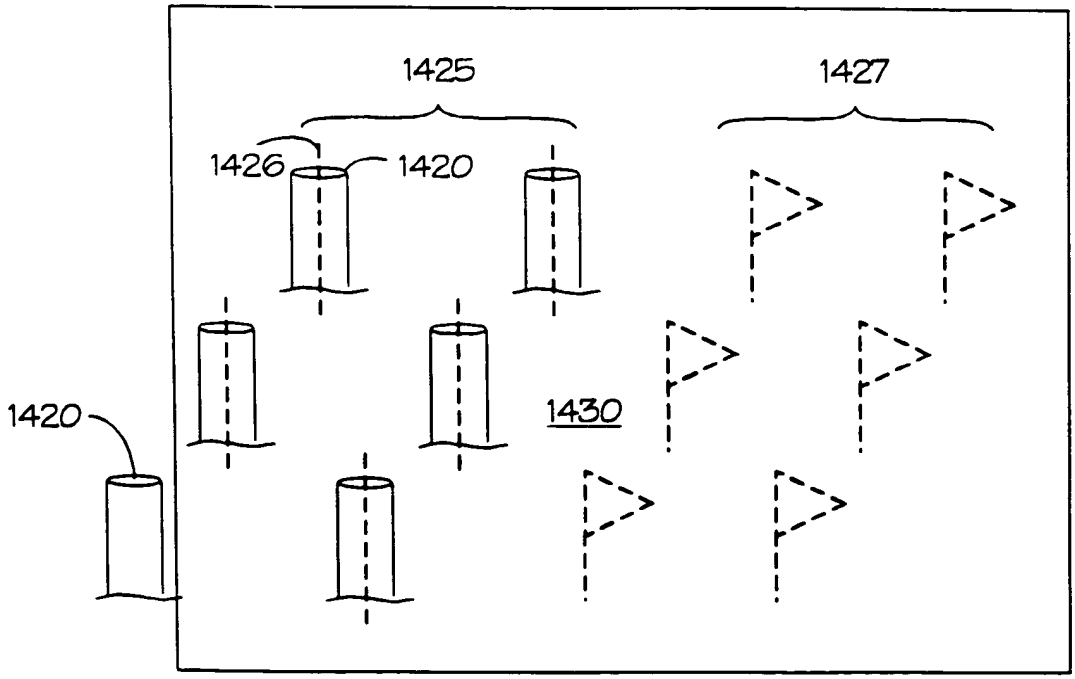


Fig. 29

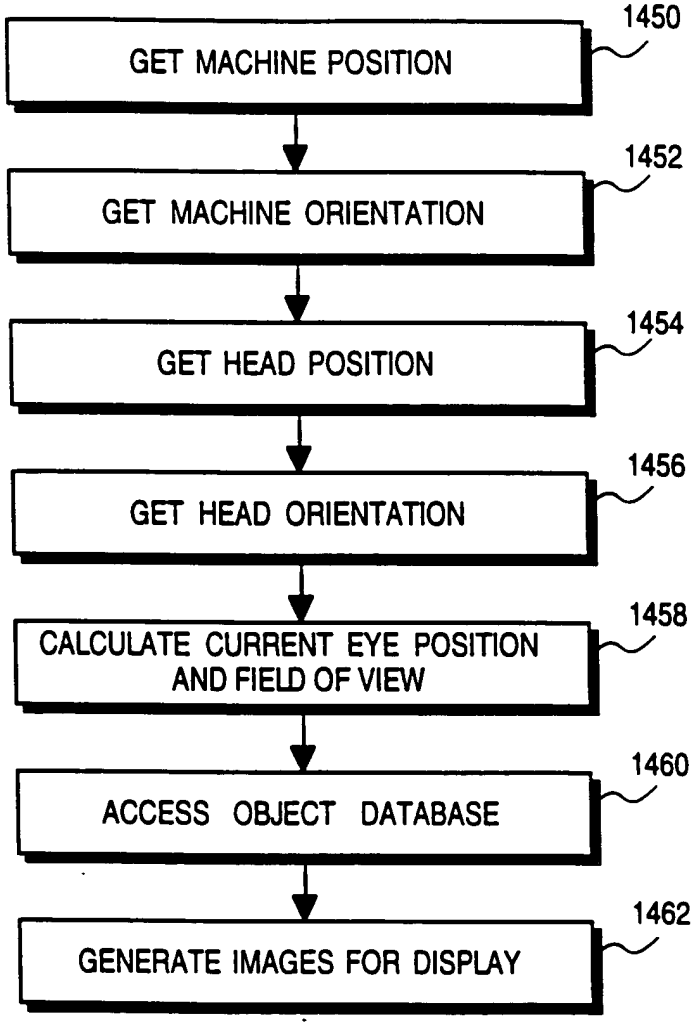

GET MACHINE POSITION
1450
GET MACHINE ORIENTATION
1452
GET HEAD POSITION
1454
GET HEAD ORIENTATION
1456
CALCULATE CURRENT EYE POSITION AND FIELD OF VIEW
1458
ACCESS OBJECT DATABASE
1460
GENERATE IMAGES FOR DISPLAY
1462

FIG. 30

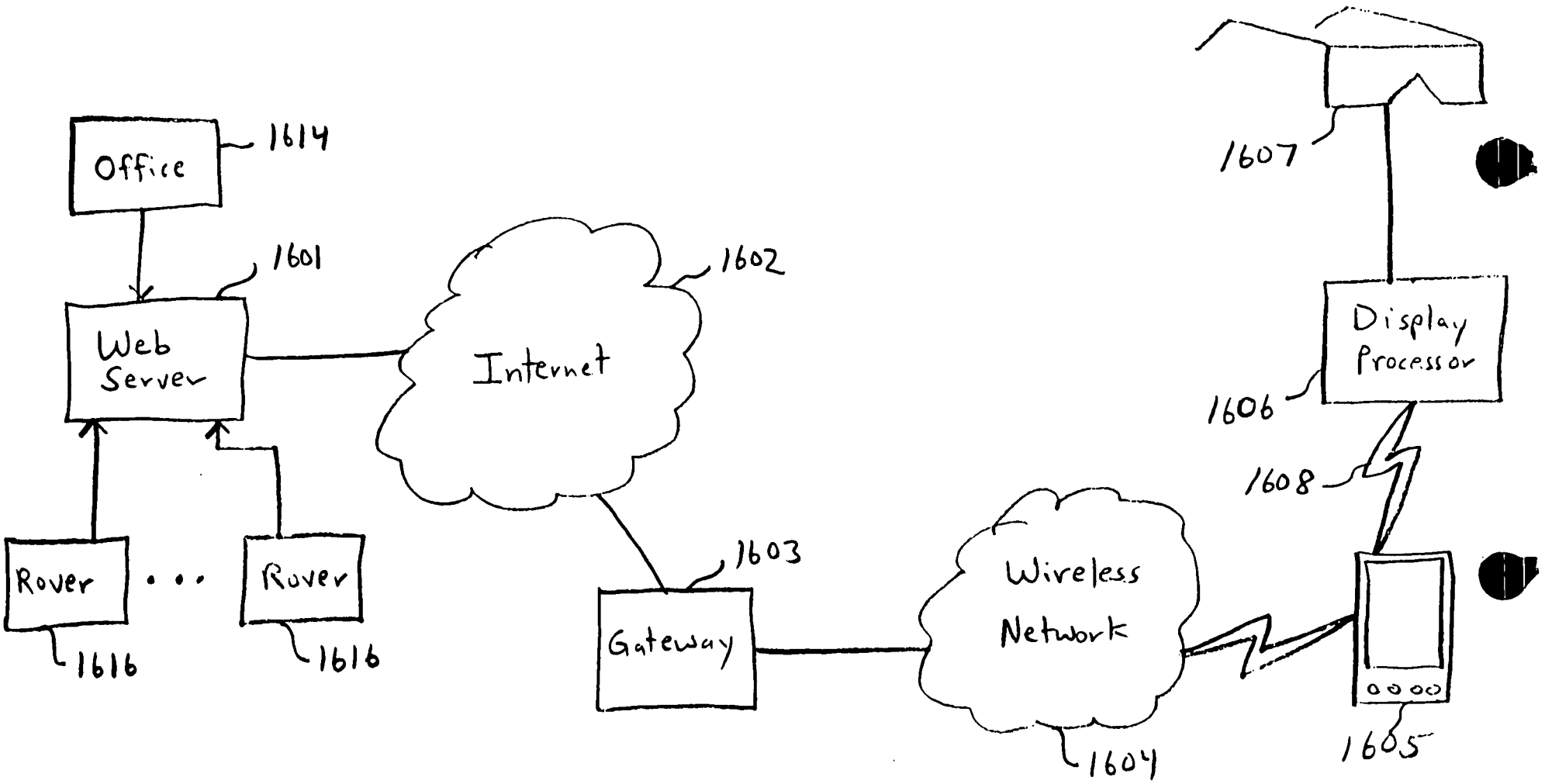

Office
1614
1601
Web Server
Internet
1602
Rover
Rover
1616
1616
1603
Gateway
Wireless Network
1604
1607
Display Processor
1606
1608
1605

FIG. 31

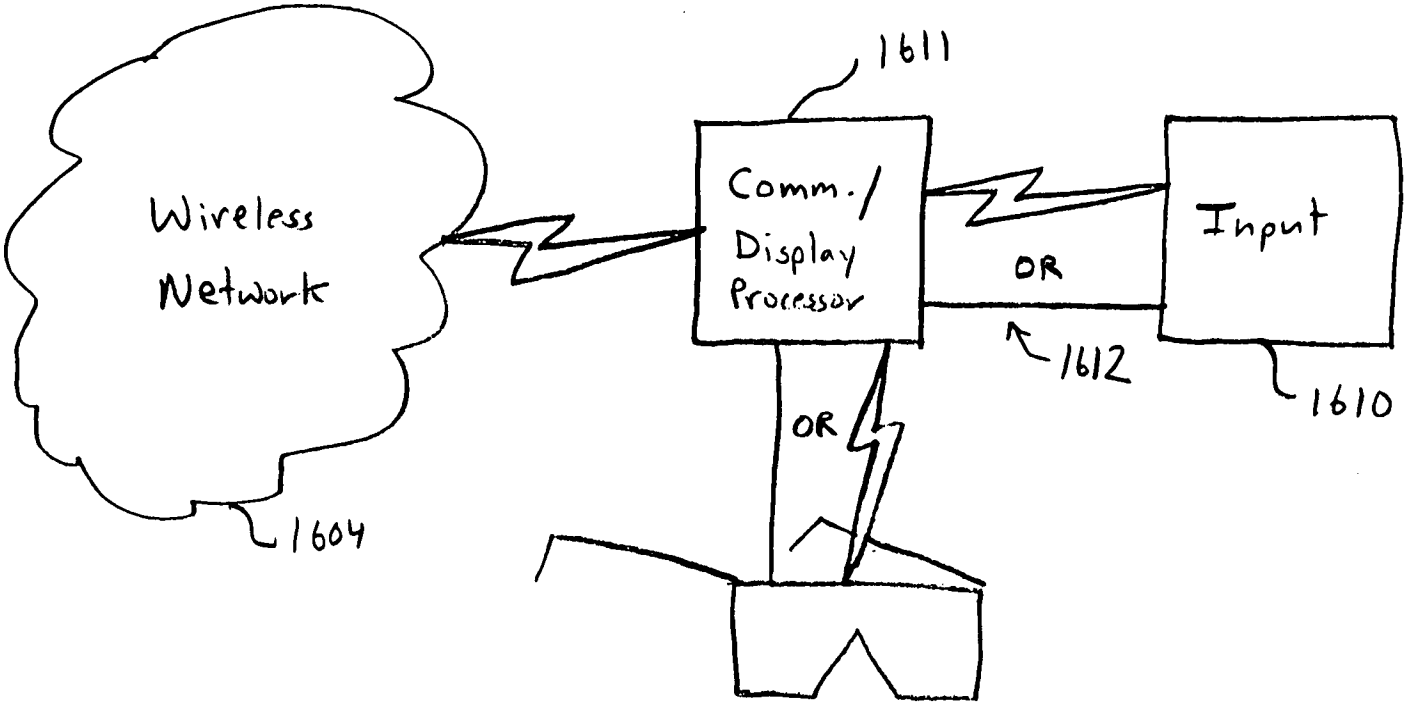

1611
Wireless Network
Comm./ Display Processor
Input
OR
1612
1610
OR
1604

FIG. 32